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1921-22

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STANFORD UNIVERSITY, CALIFORNIA
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CONTENTS

PAGE

CALENDAR 5
ADMINISTRATIVE OFFICERS 6
OFFICERS OF INSTRUCTION AND ADMINISTRATION 10
ORGANIZATION 65
ADMISSION TO THE UNIVERSITY 73
FEES, EXPENSES, AND AID FUNDS 85
GENERAL REGULATIONS 97
DEGREES AND TEACHING CREDENTIALS 107
DEPARTMENTS AND COURSES OF INSTRUCTION:

Anatomy 119
Applied Mathematics 121
Bacteriology and Experimental Pathology 124
Biblical History and Literature 127
Biology 128
Botany 129
Chemistry 133
Economics 140
Education 148
(Graphic Art, 161)
Engineering 164
(Civil, 165; Electrical, 171; Mechanical, 173)
English 179
(Public Speaking, 188; Journalism, 190)
Geology 193
Germanic Languages 198
Greek 204
History 208
Hopkins Marine Station 218
Latin 221
Law 226
Library 238
Mathematics 240
Medicine 243
Memorial Church 257
Military Training 257
Mining and Metallurgy 262
Music 270
Philosophy 271
Physical Education (men) 273
Physical Education (women) 276
Physics 281
Physiology 286
Political Science 289
Psychology 293
Romanic Languages 295

PAGE
Slavic 308
Zoology 309
(Entomology, 312)
LECTURES AND DEBATES 316
MUSEUM AND ART GALLERY 319
DEGREES CONFERRED 321
FELLOWS AND SCHOLARS 335
DIRECTORY OF STUDENTS 340
ALUMNI ASSOCIATION 445
INDEX 448

OFFICE DIRECTORY

[The rooms in the Inner Quadrangle are numbered consecutively, beginning at the left of the main entrance, ten numbers being allotted to each building. In the Outer Quadrangle forty numbers are allotted to each of the larger buildings and ten numbers to each one-story building, beginning with the Assembly Hall (number 120). The Administration Building is on the north facade of the Outer Quadrangle. The Engineering buildings south of the Quadrangles begin with number 500. The Library is the central building in the second quadrangle group. The Chemistry building is on the west avenue between the Quadrangles and the Museum. Anatomy and Bacteriology are in the old Museum building.]

The administration officers are:

PRESIDENT, room 165.
COMPTROLLER, room 162.
REGISTRAR, room 164.
DEAN OF MEN, room 161.
DEAN OF WOMEN, room 163a
LOWER DIVISION COMMITTEE, room 163b
ACADEMIC SECRETARY AND ALUMNI SECRETARY, room 174.
LIBRARIAN, University Library.
APPOINTMENT SECRETARY, room 170.
MEDICAL ADVISER OF MEN, Encina Gymnasium.
MEDICAL ADVISER OF WOMEN, Roble Gymnasium.
COMMITTEE ON PUBLIC HEALTH, room 163b.

The various Departmental offices are given in the SCHEDULE and in the DIRECTORY OF OFFICERS AND STUDENTS.

The University Post Office is *Stanford University, California.*

The University Telephone Office is *Palo Alto* (Office and Departmental telephones "Palo Alto 900" with local numbers added).

The University Railway Station and Telegraph and Express Offices are *Palo Alto, California.*

Requests for *University Bulletins*, blanks, and other printed matter, and inquiries regarding terms of admission, advanced standing, etc., should be addressed to THE REGISTRAR, *Stanford University, California.*

UNIVERSITY CALENDAR

1921

AUTUMN QUARTER

Oct.	1	Saturday	Registration for Autumn Quarter.
Oct.	3	Monday	Instruction begins.
Oct.	7	Friday	Conferring of Degrees.
Nov.	24	Thursday	Thanksgiving Recess.
Nov.	27	Sunday	
Dec.	19–21	Monday-Wednesday	End-Quarter Examinations.

1922

WINTER QUARTER

Jan.	3	Tuesday	Registration for Winter Quarter.
Jan.	4	Wednesday	Instruction begins.
Jan.	6	Friday	Conferring of Degrees.
Feb.	22	Wednesday	Washington's Birthday.
March	9	Thursday	Founders' Day.
Mar.	22–24	Wednesday-Friday	End-Quarter Examinations.

SPRING QUARTER

April	3	Monday	Registration for Spring Quarter.
April	4	Tuesday	Instruction begins.
April	7	Friday	Conferring of Degrees.
June	12–14	Monday-Wednesday	End-Quarter Examinations.
June	19	Monday	Commencement.

SUMMER QUARTER

June	20	Tuesday	Registration for Summer Quarter.
June	21	Wednesday	Instruction begins.
July	4	Tuesday	Independence Day.
July	26	Wednesday	First Half ends.
July	27	Thursday	Second Half begins.
Aug. 31 – Sept. 2		Thursday-Saturday	End-Quarter Examinations.

ADMINISTRATIVE OFFICERS

THE BOARD OF TRUSTEES

[The figures in parentheses indicate year of beginning of service.]

FRANK BARTOW ANDERSON (1912), California and Sansome, San Francisco
WILLIAM B. BOURN (1917), 375 Sutter st., San Francisco
SELAH CHAMBERLAIN, A. B. (1918), (Mills Bldg., S. F.) Woodside, Redwood City
LELAND WHITMAN CUTLER, A.B. (1920), Insurance Exchange Bldg., San Francisco
FRANK PRENTISS DEERING, A. M. (1916), Nevada Bank Bldg., San Francisco
CHARLES PARMELEE EELLS, A. B. (1905), 2415 Pierce st., San Francisco
JOSEPH DONOHOE GRANT, A. B. (1891), 2200 Broadway, San Francisco
THOMAS TINGEY CRAVEN GREGORY, A. B. (1919), Balfour Bldg., San Francisco
HERBERT CLARK HOOVER, LL. D. (1912), Washington, D. C.
TIMOTHY HOPKINS (1885), Nevada Bank Bldg., San Francisco
SAMUEL FRANKLIN LEIB, LL. B. (1891), First Ntl. Bank Bldg., San Jose
WILLIAM MAYO NEWHALL, B. S. (1912), 260 Calif. st., San Francisco
JAMES LEROY NICKEL (1909), Merchants Exchange Bldg., San Francisco
JOHN THOMAS NOURSE, A. B. (1920), Wells Fargo Bldg., San Francisco
MARCUS CAUFFMAN SLOSS, A. M. (1920), Mills Bldg., San Francisco

OFFICERS OF THE BOARD

President: WILLIAM MAYO NEWHALL.
Vice-President: MARCUS CAUFFMAN SLOSS.
Treasurer: TIMOTHY HOPKINS.
Secretary and Assistant Treasurer: THOMAS TINGEY CRAVEN GREGORY.
Assistant Secretary: LELAND CUTLER.

STANDING COMMITTEES OF THE BOARD

Finance: GREGORY, ANDERSON, BOURN, CHAMBERLAIN, GRANT, HOPKINS, NICKEL, NEWHALL.
University: NOURSE, DEERING, EELLS, HOOVER, LEIB, CUTLER, SLOSS, NEWHALL.
Library: HOPKINS, HOOVER, NOURSE.
Rules: GREGORY, NOURSE, SLOSS.
Campus: CUTLER, GREGORY, HOPKINS, HOOVER.
Medical Sub-Committee: NOURSE, CHAMBERLAIN, GREGORY.

THE UNIVERSITY

[Office and office hours in parentheses; MTWThF unless otherwise specified.]

President: Ray Lyman Wilbur. (Adm. 165, 10–12, 2–5.)
Comptroller: Almon Edward Roth. (Adm. 162, 8:30–12, 1:30–5; S 8:30–12.)
Registrar: Orrin Leslie Elliott. (Adm. 164, 8–12, 1–4; S 8–12.)
Librarian: George Thomas Clark. (Library, 9–12:30, 1:30–4:30.)
Academic Secretary: John Ezra McDowell. (Adm. 174, 8–5; S 8–12.)
Dean of Women: Mary Yost. (Adm. 163a, 10–12; MTW afternoons by appointment.)
Dean of Men: George Bliss Culver. (Adm. 161a, 9–12, 1–4; S 9–10 by appointment.)
Dean of the School of Education: Ellwood Patterson Cubberley. (51.)
Dean of the Law School: Charles Andrews Huston. (5, 11–12.)
Dean of the School of Medicine: William Ophüls. (San Francisco.)
Dean of Graduate Study: Edward Curtis Franklin. (c35.)
Chaplain: David Charles Gardner. (Vestry, 9–12.)
Appointment Secretary: Elizabeth Burritt Snell. (Adm. 170, 1–4:15 by appointment.)
Medical Adviser of Women: Clelia Duel Mosher. (Roble Gymnasium.)
Medical Adviser of Men: Alfred David Browne. (Encina Gymnasium, 11–12, 3–6; S 11–12.)

DEPARTMENT EXECUTIVES

[Office in parentheses.]

Anatomy: Arthur William Meyer. (m7.)
Applied Mathematics: Leander Miller Hoskins. (275.)
Bacteriology and Experimental Pathology: William Ludlow Holman.† (m5.)
Botany: George James Pierce.† (466.)
Chemistry: Robert Eckles Swain. (c44.)
Civil Engineering: Charles David Marx. (271.)
Economics: Murray Shipley Wildman. (223.)
Education: Ellwood Patterson Cubberley. (51.)
Electrical Engineering: Harris Joseph Ryan. (505.)
English: Raymond Macdonald Alden. (206.)
Food Research: Alonzo Englebert Taylor. (32.)
Geology: James Perrin Smith. (329.)

† Acting.

Germanic Languages: William Alpha Cooper. (116.)
Greek: Augustus Taber Murray. (250.)
History: Ephraim Douglas Adams. (237.)
Latin: Henry Rushton Fairclough. (257.)
Law: Charles Andrews Huston. (3.)
Mathematics: Robert Edgar Allardice. (62.)
Mechanical Engineering: Guido Hugo Marx.† (260.)
Medicine: William Ophüls. (San Francisco.)
Anatomy: Arthur William Meyer. (m7.)
Bacteriology and Experimental Pathology: Edwin William Schultz.† (m4.) (William Ludlow Holman†, Spring and Summer Quarters.)
Chemistry: Robert Eckles Swain. (c44.)
Hygiene and Public Health: William Ophüls. (San Francisco.)
Medicine: Albion Walter Hewlett. (San Francisco.)
Obstetrics and Gynecology: Alfred Baker Spalding. (San Francisco.)
Pathology: William Ophüls. (San Francisco.)
Pharmacology: Paul John Hanzlik. (San Francisco.)
Physiology: Ernest Gale Martin. (482.)
Surgery: Stanley Stillman. (San Francisco.)
Military Science and Tactics: Leroy Pierce Collins.
Mining and Metallurgy: Theodore Jesse Hoover. (557.)
Philosophy: Henry Waldgrave Stuart. (92.)
Physics: David Locke Webster. (389.)
Physiology: Ernest Gale Martin. (482.)
Political Science: Victor J. West. (22.)
Psychology: Frank Angell. (414.)
Romanic Languages: Oliver Martin Johnston. (240.)
Zoology: Charles Henry Gilbert. (443.)

Physical Education—
Men: Walter Daniel Powell.
Women: Helen Masters Bunting.
Library: George Thomas Clark.
Memorial Church: David Charles Gardner.
Museum: Pedro J. Lemos.

† Acting.

STANDING COMMITTEES OF THE ACADEMIC COUNCIL

[The first-named member in each committee is Chairman, unless otherwise indicated. The term of office of members of the Executive Committee begins immediately upon election (in May); of all other standing committees, September 1st.]

ADVISORY BOARD

‡Carruth, Cathcart, ‡Durand, §Elliott, †Fairclough, Franklin, ‡Green, Huston, McFarland, C. D. Marx (Chairman), †J. P. Smith, Swain, ‖Wildman.

ADMINISTRATIVE COMMITTEES.

1. Student Affairs: Heath, Henline, Owens, Swain, Wildman.
2. Athletics (Men): Murray, Mitchell, Moreno, Powell, E. W. Smith.
3. Athletics (Women): Miss Bunting, Miss Buckingham, Miss McCracken, Dr. Mosher, Miss Stoltenberg, Miss Yost.
4. Public Exercises: Robinson, Cooper, Cottrell, Kirkwood, Meyer, Tatlock.
5. Public Health: Mitchell, Browne, Culver, Dr. Mosher, Miss Yost.
6. Scholarship: Whittier, Culver, Elliott, Fish, P. A. Martin, Terman, Miss Yost.
7. Vocational Guidance: J. G. Brown, Culver, Eckart, Huston, Mrs. Snell, Miss Yost.
8. Lower Division: Mitchell, Foster, Heath, Lesley, Moreno, Robinson, E. W. Martin, West, Wildman, Miss Yost.
9. Research: Franklin, Briggs, Hoover, Meyer, Ophüls, Tatlock, Webster, Wilbur.

ACADEMIC COMMITTEES

1. Executive Committee: Wilbur, Alden, Burlingame, Cathcart, Elliott, Fish, Foster, ‡Green, Heath, Lesley, McDowell, †Mitchell, Swain, Wildman.
2. Admission and Advanced Standing: Elliott, J. C. Clark, Proctor, Vernier, West.
3. Registration: Elliott, Cross, Manning, Mitchell, Seward.
4. Graduation: Fairclough, Bingham, Elliott, E. G. Martin, Webster.
5. Schedule and Examinations: Mitchell, Elliott, Hyde, Jones, Stebbins.
6. Graduate Study: Franklin, Alden, ‡Durand, Hoskins, Huston, Meyer, †Moreno, Peirce, J. P. Smith, Stuart, Tatlock, Wildman.
7. Library: Swain, Adams, Cooper, Moser, Wildman.
8. University Publications: Townley, Adams, Hoover, McFarland, Mrs. Russell.

† Acting. ‡ Absent on leave. §Acting winter quarter. ‖ Acting autumn and spring quarters.

OFFICERS OF INSTRUCTION AND ADMINISTRATION

[Name; office; residence telephone; title; residence; post-office. Post-office in all cases *Stanford University* except where University residence is followed by initial letters of town ("p" indicates *Palo Alto* post-office; "Mayfield-m," *Mayfield* post-office, etc.). Street address *Palo Alto* or *Campus* unless otherwise named. Brackets indicate absence on leave for the year. The dagger (†) marks the names of men who are married.]

Emeritus List

†Anderson, Melville Best, Menlo Park 773
Professor of English Literature, Emeritus, Menlo Park

A. M., Butler University, 1877; LL. D., Aberdeen, 1906. At Stanford since 1891, Emeritus since 1910.

†Barkan, Adolph,
Professor of Structure and Diseases of Eye, Ear, and Larynx, Emeritus, Zurich, Switzerland

M. D., University of Vienna, 1866; LL. D., University of Glasgow, 1901. At Stanford since 1909, Emeritus since 1911.

*Branner, John Casper,
President, Emeritus,

B. S., Cornell, 1882; Ph. D., Indiana, 1885; LL. D., Arkansas, 1897, Maryville College, 1909, California, 1915; D. Sc., Chicago, 1916. Professor of Geology, 1891–1915, Vice-President, 1898–1913, President, 1913–15, Emeritus since 1916.

†Griffin, James Owen, PA 1054
Professor of German, Emeritus, 14 Alvarado

Graduate Pennsylvania State Normal School, 1873. At Stanford since 1891, Emeritus since 1917.

†Jenkins, Oliver Peebles, PA 1042M
Professor of Physiology and Histology, Emeritus, 3 Lasuen

A. B., Moore's Hill College, 1869, A. M., 1872; M. S., Indiana, 1886, Ph. D., 1889; LL. D., Moore's Hill College, 1916. At Stanford since 1891, Emeritus since 1916.

†Jordan, David Starr, PA 1001
Chancellor, Emeritus, Xazmin House

M. S., Cornell, 1872; M. D., Indiana Medical College, 1875; Ph. D., Butler College, 1878; LL. D., Cornell, 1886, Johns Hopkins, 1902, Illinois College, 1903, Indiana, 1909, California, 1915, Western Reserve, 1915. President of the University, 1891–1913, Chancellor, 1913–16, Emeritus since 1916.

Martin, Lillien Jane, Sutter 3489
Professor of Psychology, Emeritus, 821–822 Shreve Bldg., SF

A. B., Vassar, 1880; M. L. A., and honorary Ph. D., Bonn, 1913. At Stanford since 1899, Emeritus since 1916.

†Sanford, Fernando, PA 646
Professor of Physics, Emeritus, 450 Kingsley-p

B. S., Carthage College, 1879, M. S., 1882. At Stanford since 1891, Emeritus since 1919.

*Deceased March 1, 1922.

†STILLMAN, JOHN MAXSON, PA 1048
Professor of Chemistry, Emeritus, 2 Alvarado

Ph. B., California, 1874, Ph. D., 1885, LL. D., 1916. At Stanford since 1891, Emeritus since 1917.

ACTIVE LIST

†ABRAMS, LEROY, (12) PA 1125
Professor of Botany, 19 Cabrillo

A. B., Stanford, 1899, A. M., 1902; Ph. D., Columbia, 1910. Acting Professor of Botany, University of Idaho, 1899–1900; Assistant in Botany, Stanford University, 1900–02, Instructor, 1902–04; Fellow in Botany, Columbia University, 1904–05; Assistant Curator, Division of Plants, United States National Museum, 1905–06; Lecturer in Botany, University of California, first semester, 1915–16; Field Assistant, U. S. Department of Agriculture, summer, 1918. At Stanford 1900–04, and since 1906.

†ADAMS, EPHRAIM DOUGLASS, (123) PA 1058
Professor of History, 7 Cbarillo

A. B., Michigan, 1887, Ph. D., 1890; LL. D., Grinnell, 1917; Litt. D., Tufts, 1918. Principal of High School, McGregor (Ia.), 1887; Principal of High School, Saginaw (Mich.), 1889; Special Agent in Charge of Street Railways, Eleventh Census, Washington (D. C.), 1890; Assistant Professor and afterward Professor of European History, University of Kansas, 1891–1902. At Stanford since 1902.

†ADDIS, THOMAS, (1234) Sausalito 333
Professor of Medicine, 57 Miller ave., Sausalito-s

M. B. Ch. B., Edinburgh, 1905; M. D., and M. R. C. P., 1908. Clinical Assistant, Medical Out-Patient Department, Royal Infirmary of Edinburgh, 1908, 1911; Medical Registrar, Leith Hospital, 1911; Carnegie Research Scholar and Fellow, 1908–11; Director of the Clinical Laboratory, Lane Hospital, since 1911. At Stanford since 1911.

AIGLER, RALPH WILLIAM, (4)
Acting Professor of Law (Summer Quarter), Ann Arbor, Mich.

LL. B., Michigan, 1907. Attorney-at-Law, Chicago, Ill., 1908–09; Instructor in Law, University of Michigan, 1909–10, Assistant Professor, 1911–12. Professor since 1912.

†ALDEN, RAYMOND MACDONALD, (124) PA 288
Professor of English, 427 Embarcadero Road

A. B., Pennsylvania, 1894; A. M., Harvard, 1896; Ph. D., Pennsylvania, 1898. Instructor in English, Columbia University, 1894–95; Assistant in English, Harvard University, 1896–97; Senior Fellow in English, University of Pennsylvania, 1898–99, Instructor, 1899–1901; Assistant Professor of English Literature and Rhetoric, Stanford University, 1901–09, Associate Professor of English, 1909–11; Professor of English, University of Illinois, 1911–14; Acting Associate Professor, University of Chicago, Summer Quarter, 1910; Acting Professor, Harvard University, Summer Session, 1912, Columbia University, 1916, 1919. At Stanford 1901–11, and since 1914.

†ALDERSON, HARRY EVERETT, (1234) Fillmore 4548
Clinical Professor of Medicine (Dermatology), 2649 Green, SF-sf

M. D., California, 1900. Assistant in Skin Diseases, Medical Department of University of California, 1906–12; Professor of Art Anatomy, California School of Design, 1906–12; Chief of Skin Clinic, San Francisco Fruit and Flower Mission. At Stanford since 1912.

ALLARDICE, ROBERT EDGAR, (123) PA 1036
Professor of Mathematics, County Road

A. M., Edinburgh, 1882. Baxter Scholar in Mathematics, University of Edinburgh, 1882–83, Drummond Scholar in Mathematics, 1883–84; Assistant Professor of Mathematics, University of Edinburgh, 1883–92. At Stanford since 1892.

†Allen, Clifford Gilmore, (124) PA 1031J
Professor of Romanic Languages, 25 Alvarado

A. B., Boston, 1900; A. M., Stanford, 1903; Docteur de l'Université de Paris, 1916. Student, University of Paris, 1903–04; Fellow of Boston University and Student at Universities of Paris and Madrid, 1904–05. At Stanford since 1901.

†Allen, Warren D., (1234) PA 1151J
Organist, 2 Salvatierra

Associate, American Guild of Organists; Pupil of Rudolph Ganz and Alex von Fielitz, Berlin, 1909–10; studied organ with C. M. Widor, Paris, 1911; member of Busoni Class, Basel, Switzerland, September, 1910; Dean of Conservatory of Music, College of the Pacific, 1913–19. At Stanford since 1918.

Almond, Nina, (1234) PA 865
Librarian, Hoover War Library, 4 Lasuen

†Alsberg, Carl Lucas, (1234) PA 1106M
Director of the Food Research Institute, 1201 Bryant

A. B., Columbia, 1896, A. M., 1900, M. D. (College of Physicians and Surgeons), 1900. Student, Universities of Strassburg and Berlin, 1900–03; Assistant in Physiological Chemistry, Harvard University, 1902–05, Instructor in Biological Chemistry, 1905–08; Chemical Biologist, Bureau of Plant Industry, United States Department of Agriculture, 1908–12; Chief, Bureau of Chemistry, 1912–21.

†Anderson, Frederick, (1234) PA 1110J
Instructor in French, Laurel, Menlo Park-mp

A. B., Stanford, 1911.

Angell, Frank, (123) PA 87
Professor of Psychology, 1200 Bryant

B. S., Vermont, 1878; Ph. D., Leipzig, 1891; L. H. D., Vermont, 1892. Teacher in Washington (D. C.) High School, 1880–87; Assistant Professor of Psychology, Cornell University, 1891–92. At Stanford since 1892.

†Arnold, Clement Harisse, (1234) Pacific 9240
Clinical Instructor in Medicine, 3829 Jackson, SF-sf

A. B., Stanford, 1910; M. D., Johns Hopkins, 1918. At Stanford since 1919.

†Bacher, John Adolph, (1234) Pacific 3334
Assistant Clinical Professor of Surgery (Otology), Rhinology, Laryngology), 1635 Lake, SF-sf

A. B., Stanford, 1899; M. D., Harvard, 1911. At Stanford since 1917.

Bailey, Margery, (4)
Instructor in English, Pacific Grove

A. B., Stanford, 1914, A. M., 1916. At Stanford since 1914.

†Barkan, Hans, (1) Pacific 3714
Assistant Clinical Professor of Surgery (Ophthalmology), 21 Commonwealth, SF-sf

A. B., Stanford, 1905; M. D., Harvard Medical School, 1910. Assistant in Pathology, Harvard Medical School, 1910–11, Instructor, 1911–12; Pathologist to the Long Island Hospital and Boston City Almshouse, 1911–12; Voluntary Assistant, II, Eye Clinic, Vienna, 1912–14. At Stanford since 1914.

†Barkan, Otto, (1234) Fillmore 22
Clinical Instructor in Surgery, 516 Sutter, SF-sf

A. B., Trinity College, Oxford, 1909.

BARNETT, GEORGE DE FOREST, (123) PA 899
Assistant Clinical Professor of Medicine, 15 Mirada

A. B., Stanford, 1906, A. M., 1909, M. D., 1913. Instructor in Chemistry, Stanford University, 1909–10; Student, Johns Hopkins Medical School, 1910–12; Senior House Officer, Lane Hospital, 1914–15; Lieutenant, M. C., U. S. N. R. F., 1917–19. At Stanford since 1915.

†BASSETT, LEE EMERSON, (124) PA 1080
Professor of English, 9 Cabrillo

A. B., Stanford, 1901. Graduate, Cumnock School of Oratory, Los Angeles, 1898; Instructor in Public Speaking, University of Southern California, 1898–99; Student, School of Expression, Boston, 1901; Acting Associate Professor of Public Speaking, University of Washington, 1912–13; Professor of Public Speaking, University of Colorado, Summer Session, 1919. At Stanford since 1900.

†BAUMBERGER, JAMES PERCY, (234) Mission 4668
Assistant Professor of Physiology, 2520 Folsom, SF-sf

B. S., California, 1914; M. S., Harvard, 1916, D. Sc., 1918. Student, Yale Army Laboratory School, 1918; Assistant in Zoology, Harvard University, 1914–18, Assistant in Botany, 1918, Austin Teaching Fellow in Zoology, 1917–18; Assistant in Physiology, Radcliffe College, 1917, Assistant in Entomology, 1918; Instructor in Natural Sciences, Lowthorpe Horticulture School, 1915–18; Traumatic Shock Laboratory, A. E. F., 1918–19. At Stanford since 1919.

†BEACH, EDWARD LATIMER, (12) PA 1262
Lecturer in Naval and Military History, 1004 Emerson-p

Graduate, U. S. Naval Academy, 1888. Instructor, U. S. Naval Academy, 1901–03, 1906–08; Captain, U. S. Navy, retired. At Stanford since 1921.

†BEACH, WALTER GREENWOOD, (123) PA 1172R
Professor of Social Science, 540 University

A. B., Marietta, 1888; A. B., Harvard, 1891, A. M., 1892. Professor of Philosophy and History, Marietta College for Women, 1893–97; Student, Stanford University, 1897–98; Assistant Professor and afterward Professor and Head of Department of Economic Science and History, State College of Washington, 1898–1910; Professor of Social Science, University of Washington, 1910–17; Dean of College of Sciences and Arts, and Professor of Social Science, State College of Washington, 1917–20. At Stanford since 1920.

BEAN, ROBERT BENNETT, (3)
Acting Professor of Anatomy (Spring Quarter), 1106 Ramona

B. S., Virginia Polytechnic Institute, 1900; M. D., Johns Hopkins, 1904. Student Assistant in Anatomy, Johns Hopkins University, 1901–02, Assistant, 1904–05; Instructor in Anatomy, University of Michigan, 1905–07; Assistant Professor of Anatomy, Philippine Medical School, 1907–08; Associate Professor, 1908–10; Associate Professor of Anatomy, Tulane University, 1910–14; Professor of Anatomy, University of Virginia, since 1916; Lecturer on Heredity, Teachers Institute, Baguio, P. I., 1908; Government Investigator of Igorots, 1908; Government Investigator of Taytay, 1909; Research for Red Cross and Surgeon General's Office at University of Virginia Truck Camp and Camps Lee and Gordon, 1917–18.

†BECKING, LAWRENCE, (234) PA 1318R
Instructor in Botany, 666 Tennyson-p

M. S., University of Utrecht, 1919; Ph. D., Stanford, 1921.

†BINGHAM, JOSEPH WALTER, (1234) PA 1100M
Professor of Law, 653 Melville

A. B., Chicago, 1902, J. D., 1904. In practice of law, Chicago, 1904–05; Acting

Assistant Professor of Law, Cornell University, 1905–07; Professor of Law, University of Chicago, Summer Quarter, 1916. At Stanford since 1907.

BIRKHOFF, GEORGE DAVID, (4)
Lecturer in Mathematics (Summer Quarter), Cambridge, Mass.

A. B., Harvard, 1905, A. M., 1906; Ph. D., Chicago, 1907. Instructor in Mathematics, University of Wisconsin, 1907–09; Assistant Professor and Professor of Mathematics, Princeton University, 1909–12; Assistant Professor and Professor of Mathematics, Harvard University, since 1912.

†BLAISDELL, FRANK ELLSWORTH, (123) Pacific 3482
Associate Professor of Surgery, 1520 Lake, SF-sf

M. D., Cooper Medical College, 1889. Demonstrator of Anatomy, Cooper Medical College, 1903, Instructor in Biology and Embryology, 1900–09, in Histology, 1907–09, Assistant Professor of Anatomy, 1904–05, Associate Professor, 1907–12. At Stanford since 1910.

BLICHFELDT, HANS FREDERIK, (123) PA 435
Professor of Mathematics, College Terrace

A. B., Stanford, 1896; Ph. D., Leipzig, 1898. At Stanford since 1898.

†BOARDMAN, WALTER WHITNEY, (1234) Fillmore 2506
Associate Clinical Professor of Medicine (Actinography), 37 Walnut, SF-sf

M. D., Cooper Medical College, 1909. Assistant in Phipps Dispensary, Johns Hopkins Hospital, 1910, Assistant in Actinography and Externe in Gynecology, 1911. At Stanford since 1912.

†BOEZINGER, BRUNO, (234) PA 757W
Associate Professor of German, 324 Emerson-p

A. B., Fort Worth University, 1894, A. M., 1895; Ph. D., Stanford, 1910. Instructor in German, North Texas Normal School, 1895–98; Principal, German Department, San Antonio (Texas) H. S., 1899–1906; Instructor in German, Summer School, University of Texas, 1896. At Stanford since 1906.

†BOTSFORD, CHARLES SELWYN, (1234) PA 522J
Director of Intramural Athletics, 1850 Bryant-p

†BOYDEN, EDWARD ALLEN, (23)
Acting Associate Professor of Anatomy, 528 University-p

A. B., Harvard, 1909, A. M., 1911, Ph. D., 1916. Assistant in Zoology, Harvard College, 1908–11; Teaching Fellow in Histology and Embryology, Harvard Medical School, 1912–16, Instructor, 1916–19, Assistant Professor of Comparative Anatomy since 1919; Research Student, University of Freiburg in Baden, 1911–12; Special Instructor in Embryology and Comparative Anatomy, Simmons College, 1920. At Stanford (on leave of absence from Harvard) during Winter and Spring Quarters.

†BOYLE, CHARLES EMERSON, JR., (123) PA 734M
Assistant Professor of Military Science and Tactics, 1060 High-p

A. B., Stanford, 1915. Captain, Field Artillery, U. S. A. At Stanford since 1920.

†BRANDSTEN, ERNST M., (123) PA 724W
Director of Water Sports, Menlo Heights

Teacher of Swimming, Municipal Baths, Stockholm, Sweden, 1905; Swimming Coach, Neptune Swimming Club, Stockholm, 1906, University of California, 1911, 1913–15. At Stanford since 1915.

BRANDSTEN, GRETA JOHANNSEN (MRS.), (123) PA 724W
Instructor in Physical Education, Menlo Heights
At Stanford since 1916.

BREDE, ALEXANDER, (1234) PA 1021J
Instructor in English, 20 Lasuen
A. B., Michigan, 1918. Instructor in English, Marietta College, 1918–19, Detroit Junior College, 1919–21, and Summer Sessions, 1919, 1920, 1921. At Stanford since 1921.

†BRIGGS, WILLIAM DINSMORE, (234) PA 260M
Associate Professor of English, 249 Lowell-p
A. B., Stanford, 1896; A. M., Harvard, 1899, Ph. D., 1900. Student, Johns Hopkins University, 1896–97; Instructor in English and German, University of Vermont, 1900–01; Instructor in English, Western Reserve University, 1901–06. At Stanford since 1906.

BRINKMANN, HEINRICH WILHELM, (4)
Instructor in Applied Mathematics (Summer Quarter), 8 Mirada
A. B., Stanford, 1920. Instructor in Applied Mathematics, Stanford University, 1920–21; Instructor in Mathematics, Harvard University, since 1921.

BROWN, ADELAIDE, (1234) Pacific 999
Lecturer in Medicine (Child Hygiene), 45 16th Ave., SF-sf
A. B., Smith, 1888; M. D., Cooper Medical College, 1892. Interne, New England Hospital, Boston, Mass., 1893; Studying in Germany, 1894; General Practice, San Francisco, since 1894; Obstetrician to Alexander Maternity, 1899–1915.

†BROWN, HAROLD CHAPMAN, (124) PA 923J
Associate Professor of Philosophy, 453 Lowell
A. B., Williams, 1901; A. M., Harvard, 1903, Ph. D., 1905. Student, University of Berlin, 1903–04; Assistant in Philosophy, Harvard University, 1904–06; Instructor in Philosophy, Columbia University, 1906–14. At Stanford since 1914.

BROWN, JOSEPH GRANT, (123) PA 461M
Assistant Professor of Physics, 1013 Ramona-p
A. B., Stanford, 1901, A. M., 1903. Graduate, Illinois State Normal University, 1894, Instructor in Physics and Chemistry, 1894–98. At Stanford since 1900.

†BROWNE, ALFRED DAVID, (1234) PA 455J
Associate Professor of Physical Education, and
Medical Adviser of Men, 1157 Ramona-p
M. D., Tennessee, 1907. Graduate Student, Harvard Medical School, 1911–12, University of Michigan, 1913, New York Graduate Medical College, 1908, Harvard Summer Sessions, 1901, 1908; Director of Physical Education, University of North Carolina, 1903–05, Newton Public Schools, 1908–13; Professor of Physical Education, Oregon State Agricultural College, 1916, 1919; Lecturer in Physical Education, University of California, Summer Sessions, 1917, 1918, 1919, 1920. Director of Courses for Reconstruction Aids, 1918, Director of Physical Education Courses, 1919. At Stanford since 1919.

BUCKINGHAM, ELISABETH LEE, (1234) PA 964J
Assistant Professor of English, 19 Salvatierra
A. B., Stanford, 1910, A. M., 1914. Student Columbia College of Expression, Summer, 1913; Teacher of Public Speaking, State Normal School, San Jose, 1914; Student Columbia University, 1917–18, and Summer Sessions, 1916, 1919. At Stanford since 1911.

BUNNELL, STERLING, (123) West 1400
Lecturer in Surgery, 516 Sutter, SF-sf

B. S., M. D., California, 1908. Interne, St. Luke's Hospital, San Francisco, 1909; Assistant in Surgery, University of California, 1912–13; Assistant in Gynecology, St. Luke's Hospital, 1915–17; Service in Gynecology, Polyclinic, 1915, in Surgery, 1916, 1917, 1920; M. C., U. S. A., 1917–18. At Stanford since 1919.

BUNTING, HELEN MASTERS, (1234) PA 1185M
Assistant Professor and Director of Physical Education, Cowper Court

Graduate, Department of Hygiene, Wellesley College, 1912. Instructor in Physical Education, Centenary Collegiate Institute, Hackettstown (N. J.), 1912–14; Director, Physical Education for Women, University of Colorado, 1914–19. At Stanford since 1919.

BURDETT, ALICE, (4) PA 1405J
Acting Instructor in Physical Education (Summer Quarter), 235 Melville

†BURLINGAME, LEONAS LANCELOT, (123) PA 1144
Associate Professor of Botany, 24 Alvarado

Ph. B., Ohio Northern University, 1901; A. B., Chicago, 1906, Ph. D., 1908. Instructor in Biology, Ohio Northern University, 1901–04; Fellow in Botany, University of Chicago, 1906, Assistant, 1906–08. At Stanford since 1908.

BURROWS, JOHN ROBERT, (123) Fillmore 2833
Clinical Instructor in Surgery (Anesthesia), 2238 California

M. D., Cooper Medical College, 1906. Assistant in Ophthalmology, Cooper Medical College, 1909; Assistant Anesthetist, Lane Hospital, since 1910.

†BUTLER, EDMUND, (123) Fillmore 1985
Clinical Instructor in Surgery, 2469 Jackson, SF-sf

M. D., Cooper Medical College, 1911. Resident Surgeon and Senior Interne in Surgery, Lane Hospital, 1912–14; Surgeon, Municipal Emergency Hospital since 1914; Associate Member of Staff of St. Luke's Hospital since 1914.

CADY, BERTHA CHAPMAN (MRS.), (1234) PA 1477M
Special Investigator in Education (U. S. Interdepartmental Social Hygiene Board), 7 Alvarado

†CADY, VERNON M., (123) PA 1477M
Special Investigator in Education (U. S. Interdepartmental Social Hygiene Board), 7 Alvarado

†CAJORI, FLORIAN A., (124) PA 579J
Instructor in Chemistry, 1228 Byron-p

A. B., Colorado College, 1914; Ph. D., Yale, 1920. Scientific Assistant, U. S. Department of Agriculture, 1914–15; Lieutenant and Captain, Sanitary Corps, U. S. A., A. E. F., 1917–19; in charge of Children's Relief in Slovenia, Jugo-Slavia, American Relief Administration, 1919. At Stanford since 1920.

[CAMPBELL, DOUGLAS HOUGHTON, PA 1036
Professor of Botany, County Road]

Ph. M., Michigan, 1882, Ph. D., 1886. Teacher of Biology, Detroit High School, 1882–86; Student at Bonn, Tübingen, and Berlin, 1886–88; Professor of Botany, Indiana University, 1888–91. At Stanford since 1891.

†Canning, John Bennet, (123) PA 1013J
Assistant Professor of Economics, 1535 Bryant-p

Ph. B., Chicago, 1913. Graduate Scholar in Political Economy, University of Chicago, 1913–14, Assistant, 1914–15, Instructor, 1915–17. At Stanford since 1919.

†Carpenter, Francis Benton, (123) Pacific 1677
Lecturer in Gynecology, 3966 Washington, SF-sf

M. D., Columbia College, 1883. Externe, Chambers Street Hospital, N. Y., 1883; Visiting Physician, Hospital for the Insane, Honolulu, 1884–85; Gynecologist, St. Luke's Hospital, San Francisco, 1900–18; Gynecologist, San Francisco Polyclinic, 1900–18; Gynecologist, San Francisco Hospital, 1902–18.

[†Carruth, William Herbert, LA 135J
Professor of Comparative Literature, Mayfield-m

A. B., Kansas, 1880, A. M., 1883; A. M., Harvard, 1889, Ph. D., 1893. Student, Universities of Berlin and Munich, 1885–86; Morgan Fellow at Harvard University, 1888–89; Instructor in English, University of Kansas, 1879–80, Assistant Professor of Modern Languages, 1880–82, Professor, 1882–89, Professor of German, 1889–1913, Vice-President, 1901–13; Professor of German Literature, University of Wisconsin, Summer Session, 1907; President, Central Division American Modern Language Association, 1894–97. At Stanford since 1913.

†Cathcart, Arthur Martin, (1234) PA 197
Professor of Law, 1215 Emerson

A. B., Stanford, 1896. Student, Harvard University, 1896–97; Attorney at Law, Colorado Springs (Colo.), 1903–04; Lecturer in Law, University of California, Summer Session, 1908; Professor of Law, University of Chicago, Summer Quarter, 1911. At Stanford since 1904.

†Catton, Joseph Henry, (1234) Fillmore 94
Clinical Instructor in Medicine (Neurology), 2511 Octavia, SF-sf

B. S., California, 1911; M. D., California, 1913. Voluntary Assistant in Medicine, University of California, 1914–16, Assistant in Medicine, 1916; Chief of Medical Clinic, San Francisco Polyclinic, 1917–19; Assistant Visiting Physician, San Francisco Hospital, 1914–17, Visiting Physician, 1917; Major, M. C., U. S. A. At Stanford since 1919.

Chamberlain, William Edward, (1234) Sunset 130
Assistant Professor of Medicine (Radiology), and Director of the X-Ray Laboratory, 11 San Leandro Way, SF-sf

B. S., California, 1913, M. D., 1916. Assistant in Roentgenology, University of California Medical School, 1916–17; Visiting Roentgenologist to the French Hospital, San Francisco, 1917; Roentgenologist of U. S. Navy Base Hospital No. 2, 1917–18; Instructor in Roentgenology, University of California Medical School, 1919–20; Roentgenologist in Charge, Children's, Hahnemann, and St. Mary's Hospitals, San Francisco, 1919–20. At Stanford since 1920.

†Cheney, William Fitch, (134) Pacific 2573
Clinical Professor of Medicine, 33 Spruce, SF-sf

B. L., California, 1885; M. D., Cooper Medical College, 1889. Professor of Priniciples and Practice of Medicine, Cooper Medical College, 1898–1912. At Stanford since 1909.

†Clark, Arthur Bridgman, (123) PA 1023
Professor of Education (Graphic Art), 4 Cabrillo

B. Ar., Syracuse, 1888, M. Ar., 1891. Director of Trade Schools and Instructor in Drawing, New York State Reformatory, Elmira (N. Y.), 1888–89; Instructor in Architecture, Syracuse University, 1889–92; Student in Painting, New York School of Art and Académie Carmen, Paris, 1898–99; Instructor in

Pottery, California School of Arts and Crafts, Berkeley, Summer Session, 1913, 1914; Director, San Francisco Art Association, 1917; Lecturer, California School of Fine Arts, 1919–20. At Stanford since 1892.

CLARK, GEORGE THOMAS, (1234)
Librarian, 4 Lasuen

B. S., California, 1886. Assistant Librarian, University of California, 1886–87; Deputy State Librarian, California State Library, 1887–90, Classifier, 1890–94; Librarian, San Francisco Public Library, 1894–1907. At Stanford since 1907.

†CLARK, JAMES CAMERON, (123) PA 267
Associate Professor of Electrical Engineering, 453 Webster-p

B. S., Iowa State College, 1907; M. E. E., Harvard, 1912; E. E., Iowa State College, 1917. Engineering Apprentice Course, Westinghouse Electric & Manufacturing Company, 1907–09; Instructor in Electrical Engineering, Case School of Applied Science. 1909–11; Transformer Engineering Specialist, General Electric Company, 1919–20. At Stanford since 1912.

†CLARK, WILLIAM REDWOOD PRICE, (123) West 1827
Assistant Clinical Professor of Medicine (Tuberculosis), 2710 Filbert, SF-sf

M. D., Cooper Medical College, 1899. Assistant Visiting Physician, City and County Hospital, San Francisco, 1901–04; Instructor in Medicine, Cooper Medical College, 1905–11; Visiting Physician, Clinic of the San Francisco Association for the Study and Prevention of Tuberculosis, 1909–12; Visiting Physician, City and County Tuberculosis Hospital, San Francisco, 1911–12. At Stanford since 1911.

CLYDE, PAUL HIBBERT, (123) PA 414R
Instructor in Journalism, 640 Waverley

A. B., Stanford, 1920. At Stanford since 1920.

†COESTER, ALFRED, (123) PA 340J
Assistant Professor of Romanic Languages, 435 Homer

A. B., Harvard, 1896, A. M., 1906, Ph. D., 1906. Student, University of Seville, Spain, 1901–02. At Stanford, Summer Quarter, 1919, and since 1920.

†COKER, FRANCIS WILLIAM, (4) PA 1144
Acting Professor of Political Science (Summer Quarter), 24 Alvarado

A. B., North Carolina, 1899; A. B., Harvard, 1902; Ph. D., Columbia, 1910. Fellow in Political Philosophy, Columbia University, 1905–06; Instructor in Political Science, University of Missouri, 1907–09; Instructor in Politics, Princeton University, 1909–11; Assistant Professor of Political Science, Ohio State University, 1911–14, Professor of Political Science since 1914; Lecturer in American Constitutional History, Yale University, 1917–18; Lecturer in History, Columbia University, 1917–18; Professor of Political Science, University of Pennsylvania, Summer, 1921.

†COLLINS, LEROY PIERCE, (123) PA 883
Professor of Military Science and Tactics (Field Artillery), 17 Salvatierra

Major, Field Artillery, U. S. A. At Stanford since 1919.

[†CONGDON, EDGAR DAVIDSON, PA 396R
Assistant Professor of Anatomy, 330 Coleridge-p]

A. B., Syracuse, 1901, A. M., 1902; Ph. D., Harvard, 1909. Austin Teaching Fellow in Zoology, Harvard University, 1906–09; Hooper Traveling Fellow in Zoology of Harvard University, at University of Zürich, 1909–10; Sheldon Traveling Fellow in Zoology of Harvard University, at Biologische Versuchs

Anstalt and K. K. Institut für Radiumforschungen, Vienna, 1910–11; Instructor in Embryology, Cornell University Medical College, 1911–12. At Stanford since 1912.

†Cooney, Harold A., (1234) PA 497J
Assistant Professor of Military Science and Tactics (Field Artillery), Cowper Court

†Cooper, Charles Miner, (123) Fillmore 1821
Clinical Professor of Medicine, 2550 Buchanan, SF-sf

M. B. Ch. B., Edinburgh, 1897. Resident House Physician and House Surgeon, Royal Infirmary, Edinburgh, and Children's Hospital, Edinburgh, 1898 99; Assistant Demonstrator in Anatomy, University of Edinburgh, 1899; Instructor in Clinical Medicine and in Clinical Surgery, University of California, 1902–05; Associate Professor of Internal Medicine and Director of X-Ray Laboratory, Cooper Medical College, 1909–11. At Stanford since 1918.

†Cooper, William Alpha, (123) PA 593
Professor of German, 35 Salvatierra

A. B., Marietta, 1892, A. M., 1897, Litt. D., 1917. Student, Universities of Bonn, Leipzig, and Paris, 1892–94; Instructor in German and French, Marietta College, 1895–99, Professor, 1899–1901. At Stanford since 1901.

†Coover, John Edgar, (1234) PA 933
Fellow in Psychic Research and
Associate Professor of Psychology, 11 Salvatierra

A. B., Stanford, 1904, A. M., 1905, Ph. D., 1912. Principal, Como (Colo.) Schools, 1898–99; Principal, Sonora (Cal.) High School, 1905–07, Dixon High School, 1907–10; Assistant in Psychology, Stanford University, 1910–12; Captain, Sanitary Corps, U. S. A., Psychological Division, Medical Research Laboratory (Military Aeronautics), 1918–19. At Stanford since 1910.

Cosgrave, Millicent Mary, (1234) West 1951
Assistant Clinical Professor of Medicine (Pediatrics), 2619 Octavia, SF-sf

M. D., Cooper Medical College, 1902. Assistant, Children's Clinic, Cooper Medical College, 1904–08; Assistant, Medical Clinic, San Francisco Polyclinic, 1904–13; Chief, Gynecological Clinic, San Francisco Fruit and Flower Mission, 1906–13.

†Cottrell, Edwin Angell, (14) PA 1025
Professor of Political Science, 1 Salvatierra

B. A., Swarthmore, 1907; M. A., Harvard, 1913. Instructor in Political Science, Pennsylvania State College, 1907–11, Assistant Registrar, 1909–11; Assistant in Government, Harvard University, 1911–15; Swarthmore Fellow, 1912–13; Instructor in Government, Wellesley College, 1912–17; Lecturer in Constitutional Government, Brown University, 1915–16; Secretary of the Boston Budget Commission, 1915; Assistant Secretary, Boston Chamber of Commerce, 1916–17; Executive Secretary, Massachusetts Health Insurance Commission, 1917; Professor of Political Science and Director of the Bureau of Governmental Research, Ohio State University, 1917–19; Special Investigator, United States Bureau of Efficiency, 1918; Visiting Lecturer in Government, Harvard University, Spring, 1922. At Stanford since 1919.

†Cowan, John Francis, (1234) Pacific 4138
Associate Professor of Surgery, 587 15th Ave., SF-sf

A. B., Stanford, 1902; M. D., Cornell University Medical College, 1910. Assistant and Acting Instructor in Physiology, Stanford University, 1903–06; Instructor in Physiology, Cornell University Medical College, 1906–09; Interne, New York Hospital, 1910–12, Resident Surgeon, 1912–13. At Stanford since 1913.

Cox, Catharine Morris, (123) PA 1144
Instructor in German, 24 Alvarado

A. B., Stanford, 1912, A. M., 1913. Student, Universities of Jena and Berlin, 1913–14. Assistant Professor of German, College of the Pacific, 1914–15, Professor, 1915–20, Director of Physical Education for Women, 1918–20. At Stanford since 1921.

†Creager, John Oscar, (4) PA 860J
Acting Professor of Education (Summer Quarter), Kingscote

A. B., Yale, 1897, A. M., 1899. Instructor in Mathematics, Cheshire (Conn.) Episcopal Academy, 1897–98; Instructor in Modern Languages, Westminster School, Dobbs Ferry, N. Y., 1899–1900; Graduate Student, Harvard University, 1900–01; President, Lebanon (Ohio) Normal School, 1901–07; In Europe, 1907–08; Instructor in English, University School, Cleveland, Ohio, 1908–10; Principal State Normal School and Dean of College of Education, University of Wyoming, 1910–17; Wyoming State Commissioner of Education, 1917–19; President Flagstaff (Ariz.) State Normal School, 1919–20; Director of School of Education, University of Arizona, since 1920.

†Crook, Welton Joseph, (123) PA 1035
Associate Professor of Metallurgy, 9 San Juan

A. B., Stanford, 1911, Engineer, 1919. Chemist and Assayer, Department of Mines and Water Supply, Victorian Government, Australia, 1907–08; Assistant, Department of Metallurgy, Stanford University, 1910; Chief Chemist, Pacific Coast Steel Company, South San Francisco, 1911–13; Professor of Metallurgy, State School of Mines, South Dakota, 1913–17; Metallurgical Chemist, U. S. Bureau of Mines, P. P. I. E., 1915; Metallurgist and Chief Chemist, Pacific Coast Steel Company, 1917–19, Metallurgist and Chief Inspector, 1919–20, Chief Metallurgist, 1920–21; Coöperating analyst, U. S. Bureau of Standards, since 1920. At Stanford since 1921.

†Cross, Charles Norman, (123) PA 526W
Associate Professor of Mechanical Engineering, 26 Alvarado

M. E., Cornell, 1906. Assistant Engineer, Long Island State Hospital, Brooklyn (N. Y.), 1905; Dynamo and Switchboard Attendant with the New York Edison Co., New York City, 1905–06; Electrician with the Lackawanna Steel Co., Buffalo (N. Y.), 1906; with Turbine Research Department of General Electric Company, Lynn (Mass.), 1914–15. At Stanford since 1906.

†Cubberley, Ellwood Patterson, (1234) PA 1019
Professor of Education, and Dean of School of Education, 12 Cabrillo

A. B., Indiana, 1891; A. M., Columbia, 1902, Ph. D., 1905. Instructor in Science, Ridgeville College (Ind.), 1891; Professor of Physical Science, Vincennes University (Ind.), 1891–93, President, 1893–96; Superintendent of City Schools, San Diego (Cal.), 1896–98; Honorary Fellow, Columbia University, 1901–02, 1904–05; Professor of Education, University of California, Summer Sessions, 1901, 1906, University of Chicago, Summer Quarter, 1910, Harvard University, second half-year, 1910–11; Visiting Professor, Columbia University, Summer Sessions, 1907, 1914, 1916, second half-year, 1915–16. At Stanford since 1898.

Cuddy, John Jay, (1) Franklin 1031
Lecturer in Advertising, 36 Culebra, SF-sf

†Culver, George Bliss, (1234) PA 1365
Dean of Men, 33 Salvatierra

A. B., Stanford, 1897; LL. B., George Washington University, 1902. With Smithsonian Institution, Washington (D. C.), 1898–99; Head of Biological Department, Los Angeles High School, 1907–20. At Stanford since 1920.

†Cushing, Oscar Kennedy, (123) Pacific 987
Lecturer in Law, 37 7th Ave., SF-sf

†CUTTER, LAWRENCE EDMINSTER, (123) PA 459M
Assistant Professor of Mechanical Engineering, 627 Webster-p

A. B., Stanford, 1906. Machinist Apprentice and Journeyman, Union Iron Works, San Francisco, 1895–99, 1899–1902, 1903, 1904, Draftsman, 1905, 1906. At Stanford since 1906.

†CUTTING, JAMES ARTHUR, (123) San Jose 1728
Clinical Instructor in Medicine (Psychiatry), Agnew-a

A. B., Stanford, 1906; M. D., Cooper Medical College, 1911. Interne, Lane Hospital, 1911–12, Senior Medical Interne and House Officer, 1912–13; Assistant Physician, Agnews State Hospital, since 1913.

†DARSIE, MELVIN LLOYD, (4)
Instructor in Education (Summer Quarter), 360 Addison

B. S., Hiram College, 1908; A. M., Stanford, 1913. Instructor in Education, Los Angeles State Normal School, 1914–19; Assistant Professor of Education, University of California, Southern Branch, since 1919.

†DAVIDSON, PERCY ERWIN, (234) Menlo Park 1243W
Associate Professor of Education, Menlo Heights

A. B., Stanford, 1898; A. M., Harvard, 1905; Ph. D., Columbia, 1914. Teacher, Grammar and High Schools, San Diego (Cal.), 1898–1900; Supervisor of History and English Teaching, San Francisco State Normal School, 1900–03; Assistant in Education, San Diego State Normal, 1903–04; Graduate Student, Teachers' College, Columbia University, 1905–07; Instructor in Logic and History of Education, New York Training School for Teachers, 1906–07. At Stanford since 1907.

†DAVIS, BRADLEY MOORE, (4)
Acting Professor of Botany (Summer Quarter), Pacific Grove

A. B., Stanford, 1892; A. B., Harvard, 1893, A. M., 1894, Ph. D., 1895. Assistant, Associate, and Instructor in Botany, University of Chicago, 1898–1902, Assistant Professor of Plant Morphology, 1902–06; Head of Department of Botany, Marine Biological Laboratory, Woods Hole, Mass., 1897–1906; in charge of Botanical Section, Woods Hole, U. S. Bureau of Fisheries, 1903–09; Assistant Professor of Botany, University of Pennsylvania, 1911–14, Professor, 1914–19; Professor of Botany, University of Michigan, since 1919.

DAVIS, CALVIN OLIN, (4)
Acting Professor of Education (Summer Quarter),
1 Salvatierra

A. B., Michigan, 1895, A. M., 1904; Ph. D., Harvard, 1910. Teacher, South Bend (Ind.), High School, 1895–1905, Principal, 1905; Inspector of High Schools, University of Michigan, 1905–14, successively Instructor, Assistant Professor, Associate Professor, and Professor of Education, since 1905; Fellow, Harvard University, 1908–09, University of Chicago, Summer Quarter, 1920.

DAVIS, GORDON ARTHUR, (123) PA 964W
Instructor in English and Dramatics, 19 Salvatierra

A. B., Stanford, 1920. At Stanford since 1920.

†DAVIS, JOSEPH STANCLIFFE, (1234) PA 895R
Director, Food Research Institute, Escondite Cottage

A. B., Harvard, 1908, Ph. D., 1913. Instructor in Economics and Sociology, Bowdoin College, 1912–13; Instructor in Economics, Harvard University, 1913–17; Tutor in the Division of History, Government, and Economics, Harvard University, 1914–20; Assistant Professor of Economics, Harvard University, 1917–21; Assistant Statistician, American Shipping Mission and Statistician of the Allied Maritime Transport Council, London, 1918–19. At Stanford since 1921.

DAVIS, MILDRED, (234)
Reference Librarian, Hoover War Library.

DEEDS, FLOYD, (123) West 6193
Instructor in Pharmacology, 3105 Jackson, SF-sf

A. B., Western Reserve, 1916, A. M., 1920. Demonstrator in Biochemistry, Western Reserve University, 1916–17, 1919–20; Assistant, Pathological Laboratory, Base Hospital No. 4, Rouen, France, 1917–19; 2d Lieutenant, Sanitary Corps, U. S. A., 1918; Teaching Assistant in Biochemistry, Harvard Medical School, 1920–21. At Stanford since 1921.

†DICKSON, ERNEST CHARLES, (123) West 5321
Associate Professor of Medicine, 2304 Divisadero, SF-sf

B. A., Toronto, 1904, M. B., 1906, M. D., 1917. Assistant Demonstrator in Physiology, University of Toronto, 1904–05, George Brown Research Scholar, 1906–07; Assistant Resident Physician, Johns Hopkins Hospital, 1907–08; Instructor in Pathology and Bacteriology, Cooper Medical College, 1908–10; Fellow in Rockefeller Institute for Medical Research, 1910–13. At Stanford since 1910.

†DIETRICH, WALDEMAR FENN, (123) PA 1201R
Associate Professor of Metallurgy, 1320 Webster

A. B., Stanford, 1913; Engineer, 1914. Acting Instructor in Mining, Stanford University, 1913–14; Engineer with Copper Queen Consolidated Mining Company, Bisbee (Ariz.), 1914–15; Engineer and later Assayer with Consolidated Arizona Smelting Company, Humboldt (Ariz.), 1916. At Stanford 1913–14, and since 1916.

†DILLON, JAMES ROOT, (1234) Fillmore 3071
Assistant Clinical Professor of Surgery (Genito-Urinary), 2664 Greenwich, SF-sf

A. B., Stanford, 1908; M. D., Cooper Medical College, 1912. At Stanford since 1913.

†DOANE, RENNIE WILBUR (123) PA 792R
Associate Professor of Entomology, 527 Homer

A. B., Stanford, 1896. Assistant in Zoology and Botany, Washington State College, 1896–99, Assistant Professor of Zoology and Entomology, 1899–1901; Superintendent, Fisheries Experiment Station, Keyport (Wash.), 1901–03. At Stanford since 1905.

DONOVAN, MONICA, (123) Franklin 5400
Clinical Instructor in Medicine (Roentgenology), 1449 Sutter, SF-sf

A. B., Stanford, 1914, M. D., 1917. At Stanford since 1917.

†DREW, ELMER REGINALD, (123) PA 1181W
Assistant Professor of Physics, 1321 Waverley-p

B. S., California, 1888; Ph. D., Cornell, 1903. Student, University of Chicago, 1897–98, University of Berlin, 1903–05; Assistant in Physics, University of California, 1889–92, Instructor, 1892–1902. At Stanford since 1905.

†DUNLAP, KNIGHT, (4)
Lecturer in Psychology (Summer Quarter), Stanford Union

Ph. B., California, 1899, M. L., 1900; A. M., Harvard, 1902, Ph. D., 1903. LeConte Fellow, University of California, 1900–01; James Walker Fellow, Harvard University, 1901–02; Assistant and Instructor in Psychology, University of California, 1902–06; Instructor, Assistant and Associate Professor of Psychology, Johns Hopkins University, 1906–16, Professor of Experimental Psychology since 1916; Major, Sanitary Corps, in charge of Psychology Section of Medical Research Laboratory, U. S. Air Service, 1918.

[†DURAND, WILLIAM FREDERICK, PA 160
Professor of Mechanical Engineering, 11 Cabrillo]

Graduate, U. S. Naval Academy, 1880; Ph. D., Lafayette, 1888. Engineer Corps, U. S. Navy, 1880–87; Special Duty as Assistant Professor of Mechanical Engineering, Lafayette College, 1883–85, Worcester Polytechnic Institute, 1887; Professor of Mechanics and Superintendent of Mechanical Department, Michigan State Agricultural and Mechanical College, 1887–91; Professor of Marine Engineering and Principal, Graduate School of Naval Architecture and Marine Engineering, Cornell University, 1891–1904. At Stanford since 1904.

†ECKART, WILLIAM RANKINE, (123) PA 227
Professor of Mechanical Engineering, 1445 Bryant-p

M. E., Cornell, 1895. Mechanical Engineer, Siemens Halske Electric Co., Chicago, 1895–96; Construction Engineer, Allison Ranch Mine, Grass Valley (Cal.), 1896–98; Testing Work for Fraser & Chalmers, in Hawaii and Mexico, 1898–99; with W. R. Eckart, Consulting Engineer, Hydraulic Power Plants and Mining Work, 1899–1903, summers of 1904–14; Consulting Engineer, Geary St. P. & O. R. R., San Francisco, 1902–06, Columbia Steel Company since 1915, C. F. Braun & Co. since 1918. At Stanford since 1903.

†ELDRED, WILFRED, (1234) PA 1181R
Special Investigator, Food Research Institute, 410 Churchill-p

A. B. and A. M., Washington and Lee, 1909; A. M., Harvard, 1911, Ph. D., 1919. Thayer Scholar, Harvard University, 1910–11, Harris Fellow, 1911–12, Instructor in Economics, 1912–14; Instructor in History and Economics, San Diego High School and Junior College, 1914–15; Instructor in Economics, Stanford University, 1915–17; Special Agent, Federal Trade Commission, 1917–18, United States Food Administration, 1918–19; Statistician, United States Grain Corporation, 1919–20; Associate Professor of Business Administration, University of Virginia, since 1920 (on leave, 1921–22).

†ELLIOTT, ORRIN LESLIE, (1234) PA 1045
Registrar, 5 Cabrillo

Ph. B., Cornell, 1885, Ph. D., 1890. Fellow in History and Political Science, Cornell University, 1885–86, Instructor in English, 1886–91, Assistant Registrar and President's Secretary, 1890–91. At Stanford since 1891.

†ELMORE, JEFFERSON, (13) PA 251
Associate Professor of Latin, 1134 Emerson

A. B., Stanford, 1895, A. M., 1895, Ph. D., 1901. Principal of Merced County High School, 1895–97; Student, Universities of Bonn and Berlin, 1901–02. At Stanford since 1898.

ELOESSER, LEO, (1234) West 1400
Associate Clinical Professor of Surgery, 1132 Filbert, SF-sf

B. S., University of California, 1900; M. D., Heidelberg, 1907. Volunteer Assistant, Surgical Clinic, Heidelberg, 1906; Assistant, Cancer Institute, Heidelberg, 1906–07; Volunteer Assistant, Royal Surgical Clinic, Kiel, 1908–09; Volunteer Assistant, August Hospital, Berlin, 1909; Assistant in Surgery, University of California, 1910–12; Surgeon to Reserve Hospital Ettlingen and Reserve Hospital III, IV, V, Karlsruhe, 1915–16; Major M. C., U. S. A., 1918; Chief of Orthopedic Service, Letterman General Hospital, 1918–19. At Stanford since 1913.

ELY, LEONARD WHEELER, (1234) PA 264
Associate Professor of Surgery (Orthopedics), 1010 Bryant-p.

A. B., Columbia, 1889; M. D., College of Physicians and Surgeons, Columbia University, 1895. At Stanford since 1913.

EMERSON, JAMES GORDON, (123) PA 1165
Acting Assistant Professor of English (Public Speaking), 372 Forest-p

B. S., Iowa State College, 1912; J. D., Stanford, 1915. Student, Harvard Law

School, 1912–13, University of California Law School, Summer Session, 1914; Instructor in Public Speaking, Kansas State Agricultural College, 1915–16, Assistant Professor, 1916–17, Professor and Department Head, 1917–21; Military Service in America and France (Signal Corps), 1918–19.

†EMGE, LUDWIG AUGUSTUS, (1234) Park 6964
Assistant Professor of Obstetrics and Gnyecology,
36 Farnsworth Lane, SF-sf

B. S., Chicago, 1912; M. D., Rush Medical College, 1914. Assistant in Anatomy, University of Chicago, 1912–13; Special Worker in Pathology, Rush Medical College, 1913–14; Interne, Memorial Institute for Infectious Diseases and Presbyterian Hospital, 1914–15; Resident and Assistant in Gynecology and Obstetrics, University of California Hospital, 1915–17. At Stanford since 1917.

†ERWIN, ERNEST S., (1234) PA 1042J
Accountant, 23 Alvarado

†ESPINOSA, AURELIO MACEDONIO, (123) PA 1021R
Professor of Romanic Languages, 16 Salvatierra

A. B., Colorado, 1902, A. M., 1904; Ph. D., Chicago, 1909. Assistant in Romance Languages, University of Colorado, 1901–02, Instructor, Summer Terms, 1904, 1905; Professor of Romance Languages, University of New Mexico, 1902–10; Fellow in Romance Languages and Instructor in Spanish, University of Chicago, 1908–09; Lecturer in Spanish Language and Literature, Summer Sessions, University of Chicago, 1914, University of California, 1912, 1915, 1922; Associate Editor, *Journal of American Folk Lore*, since 1914; Editor, *Hispania*, since 1917; member of Advisory Editorial Board of *Inter-America*, since 1917; corresponding member of the Royal Spanish Academy, 1921; Comendador con Placa de la Orden de Isabel la Católica, 1922. At Stanford since 1910.

†EWER, BERNARD CAPEN, (4) PA 1040R
Lecturer in Psychology (Summer Quarter), 4 Alvarado

A. B., Brown, 1899, A. M., 1900; Ph. D., Harvard, 1904. Instructor in Philosophy, Northwestern University, 1905–11, Reed College, 1911–15, Brown University, 1915–16; Professor of Psychology, Pomona College, since 1916.

†FABER, HAROLD KNIEST, (1234) Fillmore 3848
Associate Professor of Medicine (Pediatrics), 3300 Clay, SF-sf

A. B., Harvard, 1906; M. D., Michigan, 1911. Medical Interne, New York Hospital, 1911–13; Resident Pathologist, Babies' Hospital, New York, 1913–14; Fellow, Rockefeller Institute, New York, 1914–15. At Stanford since 1915.

†FAIRCLOUGH, HENRY RUSHTON, (124) PA 1028W
Professor of Latin, 6 Cabrillo

A. B., Toronto, 1883, A. M., 1886, Litt. D., 1922; Ph. D., Johns Hopkins, 1896. Fellow in Classics, University College, Toronto, 1883–84; Classical and English Masters, Brockville High School, 1884–86; Graduate Scholar, Johns Hopkins University, 1886–87, Fellow, 1887; Lecturer in Greek and Ancient History, University College, Toronto, 1887–93; Professor of Latin, University of Wisconsin, Summer Session, 1906, Columbia University, Summer Session, 1908, University of Chicago, Summer Quarter, 1910; Professor of Latin, American School of Classical Studies, Rome, 1910–11; Order of St. Sara, Serbia, 1920; Officer de l'Order de la Couronne, Belgium, 1920. At Stanford since 1893.

†FARRINGTON, GUY STEVENS, (123) Franklin 7768
Lecturer on Speech Defects, 2300 Van Ness, SF-sf

Assistant, Defective Speech Clinic in Pediatrics, University of California, 1915–16; Assistant, Defective Speech Clinic, San Francisco Public Schools, 1916; Assistant, Defective Speech Clinic, Oakland Public Schools, 1917; Chief of Clinic, Defective Speech, College of Physicians and Surgeons, 1918. At Stanford since 1918.

FEARING, FLORA MAY (MRS.), (3) PA 524M
Acting Instructor in Political Science (Spring Quarter), 147 Emerson-p

A. B., Stanford, 1917, A. M., 1918.

†FERRIS, GORDON FLOYD, (1234) PA 1145M
Assistant Professor of Entomology, 667 Melville

A. B., Stanford, 1916, A. M., 1918. At Stanford since 1916.

†FISH, JOHN CHARLES LOUNSBURY, (123) PA 1266
Professor of Railroad Engineering, 308 Lincoln-p

C. E., Cornell, 1892. Instructor in Civil Engineering, Cornell University, 1892–93; Division Engineer, Lake Shore & Michigan Southern Railway, 1906–08. At Stanford since 1893.

†FISHER, ARTHUR LAWRENCE, (123) Fillmore 3620
Clinical Instructor in Surgery (Orthopedics), 3333 Jackson, SF-sf

B. S., California, 1896; M. D., Johns Hopkins, 1900. Resident House Officer, Johns Hopkins Hospital, 1900–01; Fellow, Rockefeller Institute for Medical Research, 1901–02; Assistant Visiting Surgeon, Mt. Zion Hospital, San Francisco, 1902–07; Assistant in Surgery, Lane Hospital, 1907–12; Assistant in Orthopedics, Stanford Medical School, 1912–16; Instructor in Orthopedic Surgery, University of California, 1916–19. At Stanford 1912–16, and since 1920.

FISHER, WALTER KENRICK, (234) Monterey 407W
Associate Professor of Zoology, 844 Laurel, Pacific Grove-pg

A. B., Stanford, 1901, A. M., 1903, Ph. D., 1906. Assistant, U. S. Biological Survey, 1897–1901, 1903; Assistant U. S. Fish Commission, 1902, 1904; Curator, Department of Invertebrate Zoology, California Academy of Sciences. At Stanford since 1902.

†FLETCHER, HAROLD AUGUSTUS, (123) Franklin 1536
Clinical Instructor in Surgery (Otology, Rhinology, Laryngology), 1815 California, SF-sf

B. S., California, 1912; M. D., Stanford, 1916. Interne, Lane Hospital, 1916–17; M. R. C., U. S. N., 1918–19. At Stanford since 1919.

FLETCHER, WILLIAM DALY, (123) PA 970
Graduate Manager of Athletics, Stanford Union

A. B., Stanford, 1916.

†FOSTER, BENJAMIN OLIVER, (23) PA 245R
Associate Professor of Latin, 22 Lasuen

A. B., Stanford, 1895; A. M., Harvard, 1897, Ph. D., 1899. Parker Fellow of Harvard University, studying in the American School of Classical Studies in Rome, 1899–1900; Acting Professor of Latin and Greek, State Normal College of Michigan, 1900–01; Instructor, University of California, Summer Session, 1908. At Stanford since 1901.

†FRANKLIN, EDWARD CURTIS, (123) PA 216
Professor of Organic Chemistry, and Dean of Graduate Study, 16 Mirada

B. S., Kansas, 1888, M. S., 1890; Ph. D., Johns Hopkins, 1894. Chemist to the Palo Alto Plantation and Sugar Factory, Donaldsville (La.), 1888; Chemist to the Bella Vista Mining and Milling Co., Los Quemados, Costa Rica, 1897; Instructor in Chemistry, University of Kansas, 1888–90; Student University of Berlin, 1890–91; Assistant in Chemistry, University of Kansas, 1891–93, Associate Professor, 1894–99, Professor of Physical Chemistry, 1899–1903;

Member of the U. S. Assay Commission, 1907; Chief of the Division of Chemistry, U. S. Public Health Service, Washington (D. C.), 1911–13; Member Advisory Board, Bureau of Mines, Washington (D. C.), 1917–18; Physical Chemist, Bureau of Standards, 1918; Consulting Chemist, Ordnance Bureau, 1918. At Stanford since 1903.

†FREELAND, GEORGE EARL, (3) SJ 2308J
Lecturer in Education (Spring Quarter),
State Teachers College, San Jose-sj

A. M., Clark, 1913, Ph. D., 1920. Principal of Training School, State Normal School, Endinboro, Pa., 1913–14, State Teachers College, Greeley, Colo., 1914–17; Associate Professor of Education, University of Washington, 1917–21; Professor of Education, State Teachers College, San Jose, Cal., since 1921.

†FRIEND, WILL A., (1234) PA 515J
Superintendent of the University Press, 21 Alvarado

†GARDNER, DAVID CHARLES, (123) PA 1068
Chaplain, and Lecturer on Biblical History and Literature, 1a Alvarado

Graduate, Church Divinity School of the Pacific, 1897, D. D., 1920. Curate St. James Mission, San Francisco, 1898; Rector of All Saints Church, Palo Alto, 1898–1902. At Stanford since 1902.

†GERMANN, ALBERT FREDERICK OTTOMAR, (234) PA 993J
Assistant Professor of Chemistry, Menlo Heights

A. B., Indiana, 1909, A. M., 1910; A. M., Wisconsin, 1910; Sc. D., Université de Genève, Suisse, 1912. Teaching Fellow in Chemistry, Indiana University, 1909; Assistant in Chemistry, University of Wisconsin, 1909–10; Student, Universities of Geneva and Berlin, 1910–12; Instructor in Chemistry, Adelbert College and the College for Women, Western Reserve University, 1913–15, Assistant Professor of Chemistry, 1915–21, Associate Professor, 1921; Professor of Chemistry, Cleveland Training School for Nurses, 1918; in charge of instruction in Chemistry, Cleveland School of Education, Summer Sessions, 1917–21. At Stanford since 1921.

GIANINI, LEO GREGORY, (123)
Instructor in Applied Mathematics, 331 Encina

A. B., Stanford, 1921.

†GIBBONS, HENRY WALTER, (1234) Fillmore 3740
Assistant Clinical Professor of Obstetrics and Gynecology,
3491 Pacific, SF-sf

B. S., University of California, 1899; M. D., Cooper Medical College, 1902. Instructor in Pathology, Cooper Medical College, 1905–07, Instructor in Gynecology, 1907–11. At Stanford since 1912.

†GIBBONS, MORTON RAYMOND, (123) Pacific 1658
Lecturer on Medical Aspect of Insurance, 3979 Washington, SF-sf

A. B., University of California, 1891; M. D., Cooper Medical College, 1894. Instructor in Clinical Medicine, Cooper Medical College, 1904–09. At Stanford 1909–16, and since 1919.

GILBERT, CHARLES HENRY, (23)
Professor of Zoology, 21 Salvatierra

B. S., Butler University, 1879; M. S., Indiana, 1882, Ph. D., 1883. Assistant in Natural Sciences and Modern Languages, Indiana University, 1880–84; Professor of Natural History, University of Cincinnati, 1884–89; Professor of Zoology, Indiana University, 1889–91; Assistant to the U. S. Bureau of Fisheries, since 1880; Assistant, in charge of scientific explorations of the U. S. S. "Albatross," 1889, 1890, 1902, 1904, 1906; in charge of salmon investigations for British Columbia since 1912. At Stanford since 1891.

†GILMAN, PHILIP KINGSNORTH, (1234) Prospect 586
Associate Clinical Professor of Surgery, 1803 Broadway, SF-sf

A. B., Stanford, 1901; M. D., Johns Hopkins, 1905. Assistant Resident Surgeon, Johns Hopkins Hospital, 1905–07; Assistant Professor of Pathology, Philippine Medical School, 1907–08; Assistant Professor of Surgery, College of Medicine and Surgery, University of the Philippines, 1908–12, Professor of Surgery and Chief of Department, 1912–16; Chief Surgeon, Philippine General Hospital, 1912–16; Lieutenant, M. C., U. S. N. R., 1917–19. At Stanford since 1916.

†GIRARD, FRANK ROBERT, (1234) Fillmore 4566
Assistant Clinical Professor of Obstetrics and Gynecology, 3300 Clay, SF-sf

M. D., California, 1903. Volunteer Assistant, Koenigliches Krankenhaus, Berlin, Germany, 1905–06; House Pathologist and House Surgeon, St. Luke's Hospital, New York, 1906–08; Assistant Resident Physician, Sloane Maternity Hospital, New York, 1908–09; Major M. C., U. S. A., 1917–19; Chief, Surgical Service, Base Hospital No. 47, A. E. F., France. At Stanford since 1914.

†GODDARD, CHARLES BALDWIN, (1234) PA 1676R
Assistant Registrar, 541 Seale

A. B., Stanford, 1904. Graduate Student, University of Wisconsin, Summer, 1910; Special Student, Washington University, St. Louis, Mo., 1915; Teacher of English, Yeatman High School, St. Louis, 1904–09, Assistant Principal, 1909–18; Teacher of English, Harris Teachers' College, St. Louis, Summer Sessions, 1914, 1915; District Representative, War Camp Community Service (Inc.), 1918–21. At Stanford since 1921.

[GOLDER, FRANK ALFRED,
Associate Professor of History, In Europe]

A. B., Harvard, 1903, Ph. D., 1909. Instructor in History, University of Missouri, 1908–09, in History and Economics, Boston University, 1909, in History, University of Chicago, 1910; Assistant Professor of History, State College of Washington, 1910–14, Professor, 1915–20; Investigator in Russian Archives for Carnegie Institution, Washington (D. C.), 1914–15, for Carnegie Institution and American Geographical Society, 1917; Researches for U. S. Government, in connection with the War, 1917–18.

GOTTBRATH, NORBERT J., (123) Sutter 6133
Clinical Instructor in Medicine (Neurology), 321 Grant- SF-sf

B. S., St. Mary's Institute (Dayton, O.), 1898; M. D., Georgetown University, 1912. Clinical Assistant, Neurological Institute, New York City, 1914–15; Attending Physician and Instructor, Vanderbilt Clinic, 1914–16.

GRAHAM, HARRINGTON BIDWELL, (123) Prospect 4400
Associate Clinical Professor of Surgery (Otology), Olympic Club, SF-sf

B. S., California, 1896, M. D., 1899. Superintendent of Waldeck Sanitarium, 1899; Assistant in Surgery, San Francisco Polyclinic, 1904; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1910–11; Lieutenant Commander, U. S. N. R. F., 1918–19. At Stanford since 1912.

†GRAY, HENRY DAVID, (123) PA 1042R
Associate Professor of English, 22 Alvarado

Ph. B., Colgate, 1897; A. M., Columbia, 1898, Ph. D., 1904; Litt. D., Colgate, 1919. Assistant in German and French, Colgate Academy, 1896–97; University Scholar, Columbia University, 1898–1900; Instructor in Dramatic Literature, American Academy of Dramatic Arts, 1900–02; Instructor in English, University of Texas, 1902–05; Lecturer in English, Columbia University, Summer Session, 1905, University of Oregon, Summer Session, 1910, University of Illinois, Summer Session, 1912. At Stanford since 1905.

GREBS, EMIL, (13)
Lecturer in Education (Graphic Art), 1212 Tamalpais, Berkeley-p

Student, Art Institute, Chicago, Art Students' League, New York, Art Academy, Berlin, 1895–1900; Instructor, California School of Fine Arts, 1917–19; Art Director, Foster & Kleiser Company, 1920.

GREEN, BOYNTON MORRIS, (123) PA 349
Instructor in Mechanical Engineering, 245 Ramona-p

A. B., Stanford, 1914, M. E., 1916. Student Engineer, H. Koffers Company, Pittsburgh, Pa., 1916; Draftsman and Construction Engineer, Federal Telegraph Company, 1917, 1919–21. At Stanford 1920, and since 1921.

[†GREEN, RUFUS LOT, PA 1127J
Professor of Mathematics, 13 Salvatierra]

B. S., Indiana, 1885, A. M., 1889. Instructor in Mathematics, Indiana University, 1885–86, Assistant Professor, 1886–88, Associate Professor, 1889–91, Professor of Pure Mathematics, 1891–93; Student, Johns Hopkins University, 1886–87. At Stanford since 1893.

HADDEN, ELIZABETH, (1234) PA 734W
Chief of Order Division, Library, 151 Kellogg-p

At Stanford since 1901.

†HALL, HOWARD JUDSON, (124) LA 10J
Assistant Professor of English, University, Los Altos

B. S., Michigan State Agricultural College, 1890; A. B., Stanford, 1896; A. M., Harvard, 1900. Professor of English, and Librarian, University of Arizona, 1891–1904; Instructor, Army Educational Corps, A. E. F. University, Beaune, Cote d'Or, France, 1919. At Stanford since 1904.

†HANZLIK, PAUL JOHN, (123) West 6193
Professor of Pharmacology, Lane Hospital, SF-sf

Ph. C., Iowa, 1908; A. B., Illinois, 1908, A. M., 1911; M. D., Western Reserve, 1912. Demonstrator in Pharmacology, Western Reserve University, 1912–13, Instructor, 1913–15, Associate, 1915–17, Assistant Professor, 1917–20, Associate Professor, 1920–21. At Stanford since 1921.

†HARBAUGH, ROSS WALLACE, (123) Pacific 5259
Clinical Instructor in Surgery, 674 10th ave., SF-sf

A. B., Stanford, 1909, M. D., 1913. Resident Physician, St. Mary's Hospital, San Francisco, 1914–15; Assistant Medical Director, State Industrial Accident Commission, 1915–20; Assistant Medical Director, Western State Life Insurance Company, 1915–20. At Stanford since 1915.

†HARCOURT, ROBERT HENRY, (123) PA 1474J
Teaching Specialist in Forge Practice, 440 Webster-p

Graduate, Santa Barbara State Normal School, 1917. Apprentice and Blacksmith with Risdon Iron Works, San Francisco, 1898–1901, 1903–04; with Hammond Car and Elevator Company, San Francisco, 1901–02, 1904–05; with National Iron Works, San Francisco, 1902–03; Toolman with Abner Doble Steel Company, San Francisco, 1905–06, Foreman of Forge Shop, 1906–07; Instructor in Machine Shop Practice, Forge Practice, and Sheet Metal Work, State Normal School, Santa Barbara, Summer Session, 1919. At Stanford since 1907.

HARRISON, GEORGE RUSSELL, (123) PA 1439
Instructor in Physics, Reservoir Drive

A. B., Stanford, 1919, A. M., 1920. At Stanford since 1919.

†HARTMAN, GEORGE WASHINGTON, (123) Prospect 4762
Lecturer on Genito-Urinary Surgery, 1005 Hyde, SF-sf

B. S., California, 1903; M. D., Johns Hopkins, 1908. Resident Physician, French Hospital, New York City, 1908, Flushing Hospital, 1909; Adjunct in Urology, German Hospital, San Francisco, 1909–18; Urologist, Franklin Hospital, San Francisco, 1918; Chief, Urological Clinic, San Francisco Polyclinic, 1918; Chief of Clinic, San Francisco Hospital, 1917–18. At Stanford since 1919.

HAVEN, MAUDE NOBLE (MRS.), (1234) Fillmore 1151
Clinical Instructor in Medicine (Neurology), 611 Baker, SF-sf

Ph. B., California, 1894; M. D., Cooper Medical College, 1900. Assistant, Woman's Clinic, Children's Hospital, San Francisco, 1901–04. At Stanford 1914–16, and since 1917.

HAYS, ALICE NEWMAN, (1234) PA 1052J
Reference Librarian, 3 Alvarado

A. B., Stanford, 1896; B. L. S., New York State Library School, 1903. Assistant, Home Education Department, New York State Library, 1901. At Stanford since 1901.

†HEATH, HAROLD, (123) PA 434J
Professor of Zoology, 1147 Ramona-p

A. B., Ohio Wesleyan, 1893; Ph. D., Pennsylvania, 1898; D. Sc., Ohio Wesleyan, 1919. Assistant in Biology, Ohio Wesleyan University, 1891–93; Professor of Biology, University of the Pacific, 1893–94; Harrison Fellow in Zoology, University of Pennsylvania, 1896–98. At Stanford since 1894.

†HELMINGÉ, CHARLES LOUIS, (4)
Acting Assistant Professor of Romanic Languages
(Summer Quarter), 19 Salvatierra

Ph. B., Wallace College, 1911; A. M., University of Washington, 1915. Assistant Professor of Romanic Languages, University of Washington.

†HENLINE, HENRY HARRISON, (123) PA 1335M
Assistant Professor of Electrical Engineering, 159 Kellogg

B. S., Illinois, 1914. Instructor in Science and Mathematics, Oktaha (Okla.) H. S., 1914–15; Graduate Chicago Central Station Institute, 1916; with Commonwealth Edison Co., 1916–17. At Stanford since 1917.

†HEWLETT, ALBION WALTER, (1234) Fillmore 4477
Professor of Medicine, 2442 Union, SF-sf

B. S., University of California, 1895; M. D., Johns Hopkins, 1900. Assistant Professor of Theory and Practice of Medicine, Cooper Medical College, 1906–08; Professor of Internal Medicine, University of Michigan, 1908–16; Lieutenant-Commander U. S. N. R. F., 1917–19. At Stanford since 1916.

†HILL, HAROLD PHILLIPS, (123) Prospect 4136
Clinical Professor of Medicine, 2701 Larkin

A. B., Stanford, 1898; M. D., California, 1901. Assistant in Physiology, Department of Medicine, University of California, 1889–1901, Instructor, 1901–03; Assistant Visiting Physician, St. Luke's Hospital, 1903–06, Visiting Physician, since 1906. At Stanford since 1912.

†HILL, HENRIE GRANVILLE, (123) SJ 663
Lecturer in Law, 465 S. 15th, SJ-sj

A. B., Stanford, 1909, J. D., 1911.

HIRST, FRANCIS W., (1)
Lecturer in Economics, San Juan Hill

Formerly editor of the London *Economist.*

†HOLMAN, WILLIAM LUDLOW, (1234) PA 1234W
Associate Professor of Bacteriology and Experimental Pathology, 1455 Webster

B. A., McGill, 1903, M. D. C. M., 1907. Anaesthetist, Royal Victoria Hospital, Montreal, 1907–08; Assistant in Pathology and Bacteriology, R. V. H., 1908–09; Voluntary Research Student in Bacteriology, Johns Hopkins Hospital, 1909–10; Voluntary Research Student, Institute of Hygiene, Breslau, 1910; Instructor in Bacteriology, University of Pittsburgh, 1911–12, Assistant Professor, 1912–16, Associate Professor, 1916–17, Professor, 1918–20, Lecturer in Hygiene, 1912–20; Assistant in Bacteriology, Robert Walton Goelet Research Laboratories, Ris Orangis and Paris, 1916–17. At Stanford since 1920.

†HOOVER, THEODORE JESSE, (123) PA 997
Professor of Mining and Metallurgy, 450 Melville

A. B., Stanford, 1901. Assayer, Superintendent, Manager, Consulting Engineer, Managing Director, Director, and President of many mining companies in America, Europe, Asia, Africa, and Australia, 1901–19. At Stanford since 1919.

†HOSKINS, LEANDER MILLER, (123) PA 75
Professor of Applied Mathematics, 1240 Waverley-p

B. C. E., and B. S., Wisconsin, 1883, M. S., 1885, C. E., 1887. Instructor in Engineering, University of Wisconsin, 1885–89, Assistant Professor of Mechanics, 1889–91, Professor of Theoretical and Applied Mechanics, 1891–92. At Stanford since 1892.

†HULME, EDWARD MASLIN, (124) PA 399M
Associate Professor of History, 638 Channing

A. B., Stanford, 1897; A. M., Cornell, 1902. University Scholar, Harvard University, 1900–01; Cornell Traveling Scholar at College de Sorbonne, 1902; Student in Europe, 1919–20; Instructor in Literature and History, High School, Portland (Ore.), 1897–1900; Assistant Professor of History, University of Idaho, 1902–05, Associate Professor, 1905–06, Professor, 1906–21, Dean of College of Letters and Science, 1917–21; Acting Professor of European History, Stanford University, Winter Quarter, 1918; Professor of European History, University of California, Summer Session, 1918; Professor of European History, University of Chicago, 1919. At Stanford since 1921.

*HUSTON, CHARLES ANDREWS, (123)
Professor of Law, and Dean of the Law School.

A. B., Chicago, 1902, J. D., 1907; S. J. D., Harvard, 1913. Fellow in Political Economy, University of Chicago, 1902–03, Assistant in Rhetoric, 1903–04, Associate in Rhetoric, 1904–06; Professor of Law, University of Chicago, Summer Quarter, 1914, Columbia University, Summer, 1916, Yale University, Summer Quarter, 1920. At Stanford since 1906.

†HYDE, JAMES MACDONALD, (123) PA 768W
Professor of Metallurgy, 260 Churchill

A. B., Stanford, 1901. Curator, California State Mining Bureau, 1901–02; Assistant Professor of Mining and Metallurgy, University of Oregon, 1903–06; Metallurgist, Guanajuato Consolidated Mining and Milling Co., Guanajuato, Mexico, 1906; Superintendent, Manhattan Ore Reduction and Refining Company, 1907; Field Agent, Mexican Syndicate, 1910; Consulting Engineer and Independent Operator, 1907–19. At Stanford since 1919.

†ICHIHASHI, YAMATO, (3) PA 1477W
Assistant Professor of Japanese History and Government, 7 Salvatierra

A. B., Stanford, 1907, A. M., 1908; Ph. D., Harvard, 1914. Assistant in Economics, Stanford University, 1908–10; Special Agent for U. S. Immigration

*Deceased July 19, 1922.

Commission, 1908–10; Graduate Student, Harvard University, 1910–12, Henry Bromfield Roger Memorial Fellow in Sociology, 1911–12. At Stanford 1908–10, and since 1913.

†INMAN, THOMAS GEORGE, (123) Pacific 7036
Assistant Clinical Professor of Medicine (Neurology),
4547 California, SF-sf

Ph. G., California College of Pharmacy, 1892; M. D., Cooper Medical College, 1894. Assistant Demonstrator of Anatomy, Cooper Medical College, 1895–1900, Instructor in Applied Anatomy, 1900–11; Assistant Surgeon, St. Luke's Hospital, San Francisco, 1906–13, Visiting Neurologist, since 1915; Neurologist to Navy Base Hospital No. 2, 1917, 1918. At Stanford since 1915.

†JACOBS, S. NICHOLAS, (123) Prospect 4885
Assistant Lecturer in Surgery (S. F. Hospital),
3511 Jackson, SF-sf

B. S., California, 1904, M. D., 1908. Resident Physician, Trinity Hospital, 1908–10; Assistant Surgeon, San Francisco Polyclinic, 1917–18; Surgical Chief, San Francisco Polyclinic, 1920; Assistant Visiting Surgeon, San Francisco Hospital, 1917–18, Visiting Surgeon, 1920. At Stanford since 1919.

JAMMÉ, ANNA C., (4)
Lecturer in Nursing (Summer Quarter).

R. N., Johns Hopkins Hospital School of Nursing. Some time, Superintendent, New England Hospital for Women and Children, Roxbury, Mass., School of Nursing, St. Mary's Hospital, Rochester, Minn.; Director of California Bureau of Nurse Registration; President, National League of Nursing Legislation.

†JOHNSTON, OLIVER MARTIN, (123) PA 1040R
Professor of Romanic Languages, 4 Alvarado

A. B., Mississippi College, 1890, A. M., 1892; Ph. D., Johns Hopkins, 1896. Principal, Preparatory Department, Mississippi College, 1890–91, Professor of English, 1891–93; Fellow in Johns Hopkins University, 1895–96; Lecturer in French Philology, Bryn Mawr College, 1896–97; Secretary, Pacific Coast Philological Association, 1909–13, President, 1917; Professor of French, University of California, Summer Session, 1919. At Stanford since 1897.

†JONES, ELIOT, (123) PA 1031W
Professor of Economics, 31 Salvatierra

A. B., Vanderbilt, 1906; A. M., Harvard, 1908, Ph. D., 1913. Instructor in Economics, Harvard University, 1912–13, University of Pennsylvania, 1913–14; Associate Professor of Economics, Iowa State University, 1914–16; Professor of Economics, University of Texas, 1916–17; Federal Trade Commission, 1917; War Industries Board, 1918; Lecturer in Economics, University of California, Summer Session, 1920. At Stanford since 1917.

KEEFER, CHAUNCEY TENNENT, (1234) PA 970
University Engineer, Stanford Union

A. B., Stanford, 1914.

†KELLEY, TRUMAN LEE, (12) PA 1025
Professor of Education, 1 Salvatierra

A. M., Illinois, 1911; Ph. D., Columbia, 1914. Consulting Psychologist, Culver Military Academy, 1913–14; Adjutant Professor of Educational Psychology, University of Texas, 1914–17; Assistant Professor of Education, Teachers College, Columbia University, since 1917; engaged in Psychological and Statistical Work for Surgeon General's Office, Adjutant General's Office, and for Committee on Education and Special Training, 1917–18; Chief Statistician, Elementary School Intelligence Examination Board of National Research Council, Summer, 1918.

†KELLY, THOMAS HENSHAW, (3) Fillmore 5518
Clinical Instructor in Medicine, 2409 Scott, SF-sf

M. D., University of Cincinnati, 1914. Interne, Cincinnati General Hospital, 1914–15; Instructor in Medicine, University of Cincinnati, 1915–19; Medical Director, St. Francis Hospital, San Francisco, 1920; First Lieutenant, Captain, and Major, M. C., U. S. A., 1917–19. At Stanford since 1921.

KENDALL, LOIS M., (123) PA 1296
Instructor in Physical Education, 801 Waverley

A. B., Wellesley, 1913. Certificate, Hygiene Department, Wellesley College, 1916; Instructor in Physical Education, Emma Willard School, Troy, N. Y., 1916–17; Director of Physical Education, Russell Sage College, Troy, N. Y., 1917–20. At Stanford since 1920.

[†KENNEDY, ARTHUR GARFIELD, PA 474R
Assistant Professor of English Philology, 1527 Waverley-p]

A. B., Doane College, 1902; A. M., Nebraska, 1905; Ph. D., Stanford, 1914. Teacher, Chadron (Neb.) Academy, 1902–04, Norfolk (Neb.) H. S., 1905–08; Instructor in German and English, Spearfish (S. Dak.) State Normal School, 1908–12. At Stanford since 1914.

†KENNEY, WILLIAM, (123) Sunset 1310
Clinical Instructor in Medicine, 1379 6th ave., SF-sf

M. D., California, 1905. Resident Physician, St. Luke's Branch Hospital, 1906–08; Resident Physician, Relief House, 1908–14. At Stanford, 1914–16, 1917–18, and since 1919.

†KIMBERLIN, LESTER OLIN, (123) Pacific 1737
Clinical Instructor in Surgery, 166 Palm, SF-sf

M. D., Cooper Medical College, 1911. Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1912–13. At Stanford since 1918.

†KINDY, WARD B., (123) MP 1110W
Instructor in Electrical Engineering, Laurel, Menlo Park-mp

B. E. E., Ohio State, 1916. Electrical Inspector, U. S. Army Signal Corps, 1916–17; Aerial Gunnery Instructor, U. S. Naval Air Station, Key West, 1918; Instructor in Electrical Engineering, Iowa State College, 1920–21. At Stanford since 1921.

†KIRKWOOD, MARION RICE, (123) PA 436M
Professor of Law, 1325 Bryant-p

A. B., Stanford, 1909, J. D., 1911. Student, Harvard Law School, 1909–10; Assistant Professor of Law, University of Oklahoma, 1911–12. At Stanford since 1912.

LANDIS, MAUDE, (1234) West 6193
Superintendent of Nurses, and Professor of Nursing, Lane Hospital, SF-sf

A. B., Kansas, 1917; Graduate, Scarritt Hospital Training School, 1900. Graduate Study, Presbyterian Hospital, Chicago, 1905; Graduate Study, Department of Nursing and Public Health, Columbia University, 1917; Superintendent of Hospitals and Training Schools, 1901–17; Member Missouri State Board of Examination and Registration of Nurses, 1909–14; Educational Director, Lakeside Hospital Training School, Cleveland, O., 1917–18; Director, Connecticut Training School for Nurses, in affiliation with Yale University Medical School, 1918–21. At Stanford since 1921.

†LANGNECKER, HARRY LESLIE, (123) PA 854
Assistant Clinical Professor of Surgery (Orthopedics), 320 Embarcadero-p

A. B., Stanford, 1901; M. D., Johns Hopkins, 1906. Gynecological House Officer, Johns Hopkins Hospital, 1906–08; Orthopedic House Officer, Massa-

chusetts General Hospital, 1908, Assistant in Orthopedic Surgery, Out-Patient Department, 1909–11; Assistant Resident Physician, 1911–13, Assistant to Orthopedic Surgeon-in-Chief, 1913–15; Lieutenant, M. C., U. S. N. R. F., 1917–19. At Stanford since 1915.

LAYMAN, MARY H., (23) Fillmore 1953
Clinical Instructor in Medicine, 2582 Filbert, SF-sf

M. D., Ludwig-Maximilian University, Munich, 1913. Assistant, Medical and Pediatric Clinic, Munich, 1915–16; Assistant Visiting Physician, Pediatrics, San Francisco Hospital, 1917–19. At Stanford since 1917.

†LEARNED, HENRY BARRETT, (234) PA 1006
Acting Associate Professor of History, 2 Cooksey Lane

A. B., Harvard, 1890, A. M., 1897; A. M., Chicago, 1894; Ph. D., Yale, 1909. Student, University of Leipzig, 1899–1900; Teacher of History, University School, Chicago, 1892–93; in Charge of Department of History, Armour Institute, 1894–96; Assistant in History, Harvard University, 1897–98, Instructor, Harvard Summer School, 1898; Instructor in History, Sheffield Scientific School, Yale University, 1900–06; Lecturer in History, Wesleyan University, 1909–10; with Bureau of Investigation, Department of Justice, Washington (D. C.), 1917–19.

†LEMOS, PEDRO J., (123) PA 396J
Director of the Museum and Art Gallery, 460 Churchill-p

Assistant Professor of Etching and Lettering, University of California, 1910–11, Professor of Design and Applied Arts, 1911–12; Director of San Francisco Institute of Art, 1912–17; Exhibitor, Pennsylvania Academy of Fine Arts, Carnegie Institute, Pittsburgh, Brooklyn Museum of Fine Arts, Chicago Art Institute, New York Galleries, Panama-Pacific International Exposition; editor of the School Arts Magazine. At Stanford since 1917.

†LENOX, LIONEL REMOND, (123) Mt. View 47
Professor of Analytical Chemistry, Mountain View

Ph. B., Columbia, 1888. Assistant Chemist, Bethlehem Steel Co., 1887; Instructor in Chemistry, Lehigh University, 1888–91; Chemist, Ordnance Department, U. S. N., Washington (D. C.), 1891–92; Chief Chemist, Conkling Iron Co., 1888–92; Chemist, Allan Cement Co., 1890–91. At Stanford since 1892.

†LESLEY, EVERETT PARKER, (123) PA 253
Professor of Mechanical Engineering, 18 Alvarado

A. B., Stanford, 1897; M. M. E., Cornell, 1905. Apprentice and Foreman in Union Iron Works, San Francisco, 1897–1903; Assistant Inspector to Naval Constructor, 1903–04; Draftsman at U. S. Experimental Model Basin, Washington (D. C.), 1905–07. At Stanford since 1907.

†LIGGETT, JAMES BENNETT, (123) PA 824J
Teaching Specialist in Foundry Practice, 760 Waverley-p

Apprentice and Foundry Molder, Falls Rivet and Machine Co., Cuyahoga Falls (Ohio), 1883–88, Webster, Camp & Lane, Akron (Ohio), 1888–93, Bowler & Co., Cleveland (Ohio), 1893–98, Cleveland Steel Casting Co., 1898–99; Foreman, Born Steel Range Co., Cleveland (Ohio), 1899–1902, Westinghouse Electric Co., Cleveland (Ohio), 1902. At Stanford since 1902.

LOTHROP, MARGARET MULFORD, (124) PA 1028W
Instructor in Economics, 6 Cabrillo

A. B., Smith, 1905; A. M., Stanford, 1915. At Stanford since 1915.

LOWRY, CHARLES DOAK, JR., (234) PA 970
Instructor in Organic Chemistry, Stanford Union

B. S., Northwestern, 1917, M. S., 1920; A. M., Harvard, 1921. At Stanford since 1921.

LUTTRELL, PETER HARRISON, (1234)
Clinical Instructor in Medicine, 2617 Sacramento, SF-sf

M. D., Cooper Medical College, 1908. Assistant in Medical Clinic, Cooper Medical College, 1908–10, Instructor in Physical Diagnosis, 1910–11; Assistant in Medical Wards, Lane Hospital, 1911–14. At Stanford, 1916–17, 1918–20, and since 1921.

†LUTZ, HARLEY LEIST, (4) PA 1041
Acting Professor of Economics (Summer Quarter), 12 Alvarado

A. B., Oberlin, 1907; A. M., Harvard, 1908, Ph. D., 1914. Thayer Scholar in Economics, Harvard University, 1907–08, Austin Teaching Fellow in Economics, 1908–09, Sheldon Fellow in Economics, 1911–12; Associate Professor of Economics, Oberlin College, 1909–14, Professor since 1914.

LUTZ, RALPH HASWELL, (123) PA 970
Associate Professor of History, Stanford Union

A. B., Stanford, 1906; LL. B., Washington, 1907; Ph. D., Heidelberg, 1910. Student, Universities of California (summer, 1906), Bonn and Heidelberg (1907–10), Berlin (summer, 1913); Instructor in History, University of Washington, 1911–16, Assistant Professor, 1916–20; Lecturer in European History, Stanford University, 1915–16. At Stanford 1915–16, and since 1920.

[†MCCLINTOCK, MILLER L., PA 579J
Instructor in English, 1228 Byron-p]

A. B., Stanford, 1918, A. M., 1920. At Stanford since 1918.

MCCRACKEN, ISABEL, (23) PA 1127W
Assistant Professor of Entomology, 1 Arguello

A. B., Stanford, 1904, A. M., 1905, Ph. D., 1908. Student, Paris and London, 1912–13. At Stanford since 1904.

†MCDOWELL, JOHN EZRA, (1234) LA 56
Academic Secretary, and Alumni Secretary, Los Altos

A. B., Stanford, 1900. At Stanford since 1900.

†MCFARLAND, FRANK MACE, (123) PA 480
Professor of Histology, 2 Cabrillo

Ph. B., De Pauw, 1889; A. M., Stanford, 1893; Ph. D., Würzburg, 1896. Professor of Biology and Geology, Olivet College, 1889–92; Student, Würzburg, Zürich, and Naples, 1894–96. At Stanford since 1892.

†MCKEE, ALBERT BROWN, (1234) Redwood 1704F4
Clinical Professor of Surgery (Ophthalmology), Woodside-RFD, w

Ph. B., University of the Pacific, 1883, Ph. M., 1886; M. D., Cooper Medical College, 1886. Instructor and Acting Head of the Eye, Ear, Nose, and Throat Division, University of California Medical Department, 1902–08; Associate Professor of Ophthalmology, Cooper Medical College, 1908–12. At Stanford since 1912.

†MCMURPHY, JAMES IRA WILSON, (123)
Assistant Professor of Botany, 411 Yale, College Terrace

A. B., Stanford, 1908, A. M., 1909. At Stanford since 1908.

†MCNAUGHT, HARVARD YOUNG, (1234) Pacific 8561
Associate Clinical Professor of Surgery (Otology, Rhinology, Laryngology), 144 27th ave., SF-sf

M. D. C. M., Trinity University, 1897. Fellow by Examination, Trinity Medical College, 1897; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1911–12. At Stanford since 1913.

†MALONEY, HENRY WILFRED, (1234) PA 696
Director of Minor Sports, 176 Waverley

Military Gymnastic School, Dublin, Ireland, 1899; Physical Instructor, British Army, 1899–1900; British War Service, South Africa, 1901–02; Gymnastic School, Pasadena, 1904–08; Captain and Athletic Officer, A. E. F., 1917–18; Track Coach and Trainer, U. S. Track Team, Inter-Allied Games, Paris, France, 1919; Trainer and Rugby Commissioner, Rugby Teams, Olympic Games, Antwerp, Belgium, 1920; President, California Rugby Union, since 1920; Western Representative, National (Soccer) Football Association, 1922. At Stanford since 1908.

MANCHESTER, GERTRUDE BRADLEY, (4)
Instructor in Physical Education (Summer Quarter), 235 Melville-p

Instructor, Central School of Hygiene and Physical Education, New York City.

†MANNING, WILLIAM ALBERT, (1234) PA 689R
Professor of Applied Mathematics, 604 Tennyson-p

A. B., Willamette University, 1900; A. M., Stanford, 1902, Ph. D., 1904. Student, University of Paris, 1904–05; Acting Assistant Professor of Mathematics, University of Illinois, 1909–10. At Stanford since 1900.

†MANWARING, WILFRED HAMILTON, (1234) PA 618R
Professor of Bacteriology and Experimental Pathology, 364 Kingsley-p

B. S., Michigan, 1895; M. D., Johns Hopkins, 1904. Fellow and Assistant in Pathology, University of Chicago, 1904–05; Associate Professor of Pathology, Indiana University, 1905–07; Traveling Fellow, Rockefeller Institute, 1907–08, v. Wassermann's Laboratory, Berlin, 1907–08; Ehrlich's Laboratory, Frankfort-on-Main, 1908–09, Lister Institute of Preventive Medicine, London, 1909–10; Assistant in Pathology, Rockefeller Institute, 1910–13; Lecturer in Functional Pathology, Washington University Medical School, 1920–21. At Stanford since 1913.

†MARTIN, ERNEST GALE, (1234)
Professor of Physiology, 1525 Waverley

Ph. B., Hamline, 1897; Ph. D., Johns Hopkins, 1904. Assistant in Biology, Hamline University, 1896–97; Fellow in Physiology, Johns Hopkins University, 1902–03, Assistant, 1903–04; Instructor in Anatomy and Physiology, Purdue University, 1904–06; Instructor in Physiology, Harvard University, 1906–10, Assistant Professor, 1910–16; Instructor in Physiology, Simmons College, 1907–08; Lecturer in Physiology, Sargent School for Physical Education, 1906–14; Assistant Professor of Physiology, Radcliffe College, 1914–16. At Stanford since 1916.

†MARTIN, ERNEST WHITNEY, (1234) PA 132J
Associate Professor of Greek, 525 Lincoln

A. B., Chicago, 1900; A. M., Stanford, 1902, Ph. D., 1910. Instructor in Latin and Greek, Private School, Clarinda (Ia.), 1895–96, Principal of High School, 1896–98; Student, University of Berlin and American School of Classical Studies, Rome, 1900–01; Acting Professor of Latin and Greek, University of Nevada, 1908–09, Professor of Greek, 1909–10. At Stanford since 1901.

†MARTIN, PERCY ALVIN, (13) PA 1081R
Associate Professor of European History, 29 Salvatierra

A. B., Stanford, 1902, A. M., 1903; A. M., Harvard, 1907, Ph. D., 1912. Student, University of Paris, 1903–04, Universities of Berlin and Leipzig, 1907–08; Fellow, Harvard University, 1908; Professor of History and French, Whittier College, 1904–05; Lecturer in Latin-American History, Harvard University, 1915; Lecturer in South American History and Institutions, University of Washington, Summer Session, 1916. At Stanford since 1908.

†MARX, CHARLES DAVID, (123) PA 255
Professor of Civil Engineering, 357 Kingsley

B. C. E., Cornell, 1878; C. E., Karlsruhe Polytechnicum, 1881; LL. D., California, 1918. Instructor in Civil Engineering, Karlsruhe Polytechnicum, 1880–81; U. S. Assistant Engineer, Missouri and Mississippi River Improvement, 1882–84; Assistant Professor of Civil Engineering, Cornell University, 1884–90; Professor of Civil Engineering, University of Wisconsin, 1890–91. At Stanford since 1891.

†MARX, GUIDO HUGO, (123) PA 715
Professor of Machine Design, 356 Lincoln

M. E., Cornell, 1893. With Gleason Tool Co., Rochester (N. Y.), 1893–94; with Bement, Miles & Co., Philadelphia, 1894–95. At Stanford since 1895.

†MEARS, ELIOT GRINNELL, (23) PA 1500
Acting Professor of Economics, 23 Salvatierra

A. B., Harvard, 1910, M. B. A., 1912. Secretary and Instructor, Harvard Graduate School of Business Administration, 1912–16; Chief, Foreign Service Division, and later American Trade Commissioner in the Near East, United States Bureau of Foreign and Domestic Commerce, since 1916; Commercial Attaché to American High Commission in Turkey, 1919–20; Economist, Harbord Military Mission to Armenia and Transcaucasia, 1919.

MEHRTENS, HENRY GEORGE, (1234) West 6193
Assistant Professor of Medicine (Neurology),
Stanford Hospital, SF-sf

B. S., California, 1911; M. D., Stanford, 1913. Senior House Officer, Lane Hospital, 1914–15, House Physician, since 1915. At Stanford since 1915.

MERRILL, MAUD AMANDA, (1234) PA 1081M
Instructor in Psychology, 30 Alvarado

A. B., Oberlin, 1911; A. M., Stanford, 1920. At Stanford since 1920.

†MEYER, ARTHUR WILLIAM, (123) PA 1225
Professor of Anatomy, 121 Waverley-p

B. S., Wisconsin, 1898; M. D., Johns Hopkins, 1905. Assistant and Instructor in Anatomy, Johns Hopkins University, 1905–07; Assistant Professor of Anatomy, University of Minnesota, 1907–08; Professor of Anatomy, Northwestern University, 1908–09; Research Associate, Carnegie Institution, 1917–18. At Stanford since 1909.

MIRRIELEES, EDITH RONALD, (123) PA 964J
Assistant Professor of English, 19 Salvatierra

A. B., Stanford, 1907. At Stanford since 1909.

MITCHELL, ELSIE REED, (4) PA 1077
Instructor in Physical Education (Summer Quarter),
Gamma Phi Beta House

Practicing Physician, Berkeley, California.

†MITCHELL, JOHN PEARCE, (123) PA 722
Professor of Chemistry, 235 Embarcadero

A. B., Stanford, 1903, A. M., 1904, Ph. D., 1909. Student, University of Leipzig, 1904–05. At Stanford 1903–04, and since 1905.

†MOORE, CHESTER BIVEN, (1234) Fillmore 922
Clinical Instructor in Obstetrics and Gynecology,
3469 Jackson, SF-sf

B. S., California, 1906, M. D., 1910. Interne, University of California Hospital, 1910–11; House Officer, Children's Hospital, Boston, 1911–12. At Stanford since 1913.

†Moreno, Halcott Cadwalader, (1234) PA 526J
Professor of Applied Mathematics, 28 Alvarado

A. B., University of Georgia, 1893, A. M., 1894, B. L., 1896; Ph. D., Clark, 1900. Tutor in Mathematics, University of Georgia, 1893–97; Scholar and Fellow in Mathematics, Clark University, 1897–1900, Assistant in Mathematics, 1900–01. At Stanford since 1901.

†Moser, Charles, (123) PA 592J
Assistant Professor of Civil Engineering, 651 Homer-p

C. E., Ohio Northern University, 1902; A. B., Stanford, 1908. At Stanford since 1908.

Mosher, Clelia Duel, (12) PA 23
Assistant Professor of Personal Hygiene, and Medical Adviser of Women, 1094 Emerson

A. B., Stanford, 1893, A. M., 1894; M. D., Johns Hopkins, 1900. Assistant in Hygiene and Physical Training, Stanford University, 1893–94, Instructor, 1894–96; Externe in the Johns Hopkins Hospital Dispensary, and Gynecological Assistant in Dr. Howard A. Kelly's Sanatorium, Baltimore (Md.), 1900–01; Physician, Palo Alto, 1901–10. At Stanford, 1893–96, and since 1910.

†Murray, Augustus Taber, (12) PA 1025
Professor of Greek, 1 Salvatierra

A. B., Haverford, 1885; Ph. D., Johns Hopkins, 1890. Fellow in Johns Hopkins University, 1887–88; Professor of Greek, Earlham College, 1888–90; Student, Universities of Leipzig and Berlin, 1890–91; Professor of Greek, Colorado College, 1891–92. At Stanford since 1892.

Murray, Margaret, (1234) PA 1219J
Secretary to the Comptroller, 1011 Fulton

Muse, Maude, (123) West 6193
Instructor in Theory of Nursing, Lane Hospital, SF-sf

Newell, Robert Reid, (1234) Fillmore 4923
Instructor in Medicine (Radiology), 1938 Eddy, SF-sf

M. D., California, 1916. Assistant in Medicine, University of California, 1917. At Stanford since 1920.

†O'Connor, Roderic, (123) Piedmont 8460
Clinical Instructor in Surgery (Ophthalmology), 909 Hyde, SF-sf

M. D., Pennsylvania, 1900. Interne, St. Mary's Hospital, Philadelphia; First Lieutenant, Medical Corps, U. S. A., 1901; Honor Graduate, Army Medical School, 1902; Major, Medical Corps, U. S. A., 1910–14. At Stanford since 1918.

Oliver, Harry Reeves, (1)
Assistant Clinical Professor of Medicine (Serology), Laboratory, Fort Bliss, Tex.

M. D., Cooper Medical College, 1898. Assistant in Pathology, Cooper Medical College, 1898–1904, Instructor, 1904–06, Assistant Professor, 1906–11, Associate Professor of Clinical Pathology, 1911–12, Serologist, 1912. At Stanford since 1909.

†Oliver, Jean Redman, (1234) Franklin 3191
Associate Professor of Pathology, 1246 Lombard, SF-sf

A. B., Stanford, 1911, M. D., 1914. Assistant in Pathology and Bacteriology, Rockefeller Institute for Medical Research, 1916–18, Associate, 1919; First

Lieutenant and Major, M. C., U. S. A., Camp Meade (Md.); Group Laboratory Officer, Justice Hospital Group, Toul, France; Detailed on Medical History of the War, Central Medical Department Laboratory, Dijon, France, and Surgeon General's Office, Washington (D. C.), 1917–19. At Stanford, 1914–16, and since 1919.

†O'NEILL, ARTHUR ALOYSIUS, (123) Park 6916
Clinical Instructor in Medicine (Pediatrics), 100 Dolores, SF-sf

M. D., Cooper Medical College, 1891. Assistant Surgeon, Cooper Medical College Clinic, 1893; Assistant in Diseases of the Skin, San Francisco Polyclinic, since 1902; in charge of Isolation and Plague Hospital, 1907–10, of Isolation Hospital, 1912. At Stanford since 1913.

OPHÜLS, LOUISE, (1234) Fillmore 5747
Medical Librarian, Lane Medical Library, 2186 California, SF-sf

At Stanford since 1910.

†OPHÜLS, WILLIAM, (123) Fillmore 1680
Dean of the Medical School, and Professor of Pathology, 114 Walnut, SF-sf

M. D., University of Göttingen, 1895. Assistant at the Pathologic Institute at Göttingen, 1896–97; Professor of Pathology and Bacteriology, University of Missouri, 1897–98; Professor of Pathology and Bacteriology, Cooper Medical College, 1898–1912; Pathologist, Lane Hospital, since 1898; Instructor in Pathology, Training School for Military Officers, U. S. A., 1918. At Stanford since 1909.

†OWENS, WILLIAM BROWNLEE, (123) PA 1170W
Associate Professor of Law, 19 Alvarado

LL. B., Stanford, 1915. At Stanford, 1915–16, and since 1920.

†PALMATEER, THERON J., (123)
Teaching Specialist in Machine Shop Practice, 602 Cowper-p

Apprentice with Sibley & Ware, South Bend (Ind.); Journeyman Machinist, 1896–1905, with R. Hoe & Co., New York, Columbus Machine Works, Columbus (Ohio), Elems Engineering Works, Chicago, Western Gas Engine Works, Mishawaka (Ind.), Webster Iron Works, Bakersfield (Cal.), R. S. Hunkins, San Jose (Cal.). At Stanford since 1904.

PALMER, CAROLINE BELL, (123) West 6523
Clinical Instructor in Surgery (Anesthetics), 2401 Sacramento, SF-sf

M. D., Cooper Medical College, 1906. Chief Anesthetist, Lane Hospital, since 1909. At Stanford since 1917.

†PARK, CHARLES V., (1234) PA 1188W
Assistant Librarian, 1080 Emerson-p

A. B., Stanford, 1909. Certificate, New York Public Library, Library School, 1915. At Stanford since 1909.

†PARKS, GEORGE SUTTON, (123)
Instructor in Chemistry, 176 Bryant-p

B. S., Washington, 1915, M. S., 1916; Ph. D., California, 1919. Instructor in Chemistry, California Institute of Technology, 1919–20. At Stanford since 1920.

PATTERSON, THOMAS LEON, (4)
Acting Instructor in Physiology (Summer Quarter), 216 Chestnut, Pacific Grove-pg

A. B., Clark, 1909; A. M., Kansas City, 1911; M. S., Chicago, 1910–11, Ph. D., 1920. Assistant in Biology, Sheffield Scientific School, Yale University, 1910–

11; Associate Professor of Biology and Physiology, Maryland, 1912–15; Assistant Professor of Physiology, Queen's University (Canada), 1915–20, State University of Iowa, 1920–21; Professor of Physiology, Detroit College of Medicine and Surgery, since 1921.

†PEIRCE, GEORGE JAMES, (123) PA 1367J
Professor of Botany and Plant Physiology, 281 Embarcadero

S. B., Harvard, 1890; A. M. and Ph. D., Leipzig, 1894. Assistant in Botany, Harvard University and Radcliffe College, 1890–92; Parker Fellow in Harvard University, studying in Bonn, Leipzig, and Munich, 1892–94; Assistant Professor of Botany, Indiana University, 1895–97; Acting Professor of Botany, University of Wisconsin, second semester, 1910–11. At Stanford since 1897.

PERRY, ELIZABETH, (1234) PA 1025
Secretary, Food Research Institute, 1 Salvatierra

B. S., Simmons, 1914; A. M., Stanford, 1920. At Stanford since 1920.

PERRY, FRANCES, (34) PA 1025
Secretary to Dr. Alsberg, Food Research Institute, 1 Salvatierra

A. B., Radcliffe, 1911.

PETTIT, ALBERT VICTOR, (1234) Franklin 5400
Clinical Instructor in Obstetrics and Gynecology, 1499 Sutter, SF-sf

A. B., Stanford, 1915, M. D., 1919. At Stanford since 1920.

†PIERSON, PHILIP HALE, (1234) Pacific 7907
Clinical Instructor in Medicine, 734 12th ave., SF-sf

A. B., Yale, 1908; M. D., Harvard, 1913. House Officer, Massachusetts General Hospital, 1914–15. At Stanford since 1916.

†POWELL, WALTER DANIEL, (1234) PA 109
Director of Physical Education, 1130 Bryant

A. B., Wisconsin, 1914.

POWER, RICHARD H., (1) PA 709W
Assistant Professor of Military Science and Tactics (Autumn Quarter), 1037 Ramona-p

†PRICE, GEORGE CLINTON, (123) PA 1053
Professor of Zoology, 5 Alvarado

B. S., De Pauw, 1890; Ph. D., Stanford, 1897. Student in Biology, Johns Hopkins University, 1890–92; University of Munich, 1895–96. At Stanford since 1892.

†PROCTOR, WILLIAM MARTIN, (123) PA 1040J
Associate Professor of Education, and Coördinator Federal Board Vocational Education, 5 Salvatierra

A. B., Whitman, 1901; A. M., Stanford, 1916, Ph. D., 1919. Teacher of History and Civics, Cheney (Wash.), State Normal School, 1909–10; Professor of Education, Pacific University, Forest Grove, Oregon, 1911–15, Dean of Faculty, 1914–15; Instructor in Education, Harvard Summer Session, 1922. At Stanford since 1916.

PUTNAM, DOROTHY, (1234) PA 218W
Secretary, School of Education, 625 Guinda

A. B., Stanford, 1916. At Stanford since 1916.

†RAKESTRAW, NORRIS WATSON, (124) PA 1141J
Instructor in Chemistry, 677 Melville-p

A. B., Stanford, 1916, A. M., 1917, Ph. D., 1921. At Stanford since 1919.

RAY, HOWARD, (4)
Instructor in Physical Education (Summer Quarter), 465 Hawthorne-p

†READ, JAY MARION, (123) West 8705
Clinical Instructor in Medicine, 1571 Fulton, SF-sf

B. S., California, 1912, M. S., 1913; M. D., Stanford, 1915. Assistant Medical Clinic, Stanford Service, San Francisco Hospital, since 1916; Captain, M. R. C., U. S. A., 1917–19.

†REED, ALFRED CUMMINGS, (1234) Bayview 841
Assistant Clinical Professor of Medicine, 327 21st ave., SF-sf

A. B., Pomona, 1906; M. D., Bellevue Medical College, 1910. Instructor in Pharmacology, Bellevue Medical College, 1910–11; Assistant Surgeon, U. S. Public Health Service, 1911–13; Attending Physician, Yale Hospital, Changsha, China, 1913–15; Lieutenant, M. C., U. S. N. R. F., 1917–19; Chief of Medical Service, Mare Island Naval Hospital, 1918–19; Editor California State Journal of Medicine, since 1917. At Stanford since 1916.

†RENDTORFF, KARL GUSTAV, (134) PA 1081M
Professor of German, 30 Alvarado

A. M., Stanford, 1894, Ph. D., 1896. Student, University of Giessen, 1884–85, University of Kiel, 1885–91. At Stanford since 1894.

†RIGDON, RUFUS LEE, (1234) Fillmore 2285
Clinical Professor of Surgery (Genito-Urinary), 1617 Broderick, SF-sf

M. D., Cooper Medical College, 1887. Assistant and Instructor in Genito-Urinary Clinic, Cooper Medical College, 1888–98, Associate Professor of Genito-Urinary Surgery and Chief of Genito-Urinary Clinic, 1898–1908, Professor of Genito-Urinary Surgery, 1908–1912. At Stanford since 1912.

RITTER, ARTHUR JOHN, (1234) San Anselmo 8
Lecturer on Mental Deficiency, Ross-r

Graduate Teachers' College, Zürich (Switzerland), 1897; Research Assistant, Racial Studies, Johannesburg (South Africa), 1898–1901; Student, Paris, 1902–03; Instructeur des enfants arrières, Paris, 1904–05; Private Case Work with Feeble-Minded Children, 1906–11; Home School for Nervous and Backward Children, 1912; Lecturer, Department of Criminology, University of California, Summer Session, 1920. At Stanford since 1916.

†RIXFORD, EMMET, (123) Franklin 5100
Professor of Surgery, 1795 California, SF-sf

B. S., California, 1887; M. D., Cooper Medical College, 1891. Adjunct Professor of Surgery, Cooper Medical College, 1893–98, Professor, 1898–1912; Visiting Surgeon, Lane Hospital, 1895, City and County Hospital, San Francisco, since 1899; Instructor in Surgery, Training School for Military Officers, U. S. A., 1918. At Stanford since 1909.

†ROBINSON, EDGAR EUGENE, (134) PA 515W
Associate Professor of American History, 27 Salvatierra

A. B., Wisconsin, 1908, A. M., 1910. Assistant in History, University of Wisconsin, 1908–09, Fellow in American History, 1909–10; Assistant Professor of History, Carleton College, 1910–11; Instructor in History, University of Minnesota, Summer Session, 1912, Resident Lecturer, 1915–16; Assistant Professor of History, University of Michigan, Summer Session, 1916; Assistant Educational Director, S. A. T. C., 1918; Visiting Professor of American History, Yale University, 1919–20. At Stanford since 1911.

†ROGERS, AUSTIN FLINT, (123) PA 1081W
Professor of Mineralogy, 15 Salvatierra

A. B., Kansas, 1899, A. M., 1900; Ph. D., Columbia, 1902. Assistant in Mineralogy, University of Kansas, 1898–1900; Assistant Geologist, University Geological Survey of Kansas, 1898–1900, 1903; Fellow in Mineralogy, Columbia University, 1900–02, Tutor in Mineralogy, 1902–05. At Stanford since 1905.

†ROGERS, FREDERICK JOHN, (123) SJ 3438J
Associate Professor of Physics, 550 S. 6th, San Jose

M. S., Cornell, 1891. Instructor in Physics, Cornell University, 1892–1900. At Stanford since 1900.

†ROGERS, FREDERICK RAND, (4)
Instructor in Physical Education (Summer Quarter), 325 Everett-p

A. B., Stanford, 1920.

†ROSS, PERLEY ASON, (123) PA 689J
Assistant Professor of Physics, 1830 Cowper-p

A. B., Stanford, 1908, A. M., 1910, Ph. D., 1911. At Stanford since 1908.

†ROTH, ALMON EDWARD, (1234) PA 900L1
Comptroller, Santa Teresa

A. B., Stanford, 1909, J. D., 1912.

RUCH, GILES MURREL, (34) PA 1196
Instructor in Education (Summer Quarter), 319 Union

A. B., Oregon, 1914. Instructor in Ashland (Ore.) High School, 1914–17; Instructor in Education, University of Oregon, 1917–18; Psychological Service, U. S. Army, and Graduate Student, Stanford University, 1918–19; Assistant Professor of Education and Principal of the University High School, University of Oregon, 1919–20; University Fellow, Stanford University, 1920–21, Research Assistant, 1921–22.

†RUMWELL, MELVILLE E., (123) Fillmore 808
Associate Clinical Professor of Surgery, 3467 Pacific, SF-sf

M. D., Cooper Medical College, 1895. Instructor, Cooper Medical College, 1900–08; Visiting Physician, San Francisco Hospital, 1900–08; Chief, Surgical Clinic, Fruit and Flower Mission, 1908–10; Assistant, Surgical Clinic, Stanford Medical School, 1913–17. At Stanford since 1915.

RUSSELL, FRANCES THERESA (MRS.), (123) PA 964J
Assistant Professor of English, 19 Salvatierra

Ph. B., Iowa, 1895; Ph. D., Columbia, 1920. Teacher in Denison (Ia.) Normal School, 1895–96; Principal, Villisca (Ia.) High School, 1896–98; Graduate Student at Radcliffe College, 1898–99; Teacher in Anamosa (Ia.) High School, 1899–1900. At Stanford since 1905.

RUSSELL, JOHN, (123)
Instructor in Analytical Chemistry, 176 Bryant-p

B. A., University of British Columbia, 1917; M. Sc., McGill, 1918. Exhibition Scholar, McGill University, 1919.

†RYAN, HARRIS JOSEPH, (123) PA 1075
Professor of Electrical Engineering, 525 Embarcadero

M. E., Cornell, 1887. With Western Engineering Co., Lincoln (Neb.), 1887–88; Instructor in Physics, Cornell University, 1888–89, Assistant Professor of Electrical Engineering, 1889–92, Associate Professor, 1892–95, Professor, 1895–1905; Judge, Board of Awards, World's Fair, Chicago, 1893; U. S. Government Delegate, International Electrical Congress, St. Louis Exposition, 1904. At Stanford since 1905.

RYFKOGEL, HENRY ANTHON LEWIS, (123) Bayview 1713
Lecturer on Surgery (S. F. Hospital), 146 15th ave., SF-sf

M. D., California, 1894. Instructor in Anatomy, University of California, 1894–95, Instructor in Clinical Pathology, Medical Department, 1895–1900, Instructor in Bacteriology, 1900–06, in Surgical Pathology, 1906–07; Surgeon, San Francisco Polyclinic, and Visiting Surgeon, St. Francis Hospital, since 1904.

SANDERS, NATHANIEL, (1234) PA 895M
Instructor in Economics, College Terrace

A. B., Stanford, 1898. At Stanford since 1918.

SANFORD, LAURA MAUD, (34) Pacific 6188
Secretary to Dean of Medical School, 478 10th ave., SF-sf

A. B., Stanford, 1917.

†SCHALLER, WALTER FRANK, (123) Bayview 150
Clinical Professor of Medicine (Neurology), 909 Hyde, SF-sf

M. D., Cooper Medical College, 1902. Assistant in Pathology, Cooper Medical College, 1905–06; Assistant Surgeon, U. S. N., 1906–08; Student at Karlsruhe, Vienna and Paris, 1909–11; P. A. Surgeon, U. S. N. R. F., June–December, 1917, and since October, 1918. At Stanford since 1911.

†SCHAUPP, KARL LUDWIG, (1234) Pacific 3417
Clinical Instructor in Obstetrics and Gynecology, 437 Lake, SF-sf

A. B., Stanford, 1913, M. D., 1916. Senior Interne, Obstetrics and Gynecology, Lane Hospital, 1916–17; Visiting Obstetrician, San Francisco Hospital, since 1918.

SCHMITT, BERNADOTTE EVERLY, (4)
Acting Professor of History (Summer Quarter), Cleveland, O.

A. B., Tennessee, 1904; B. A., Oxford, 1908, M. A., 1913; Ph. D., Wisconsin, 1910. Rhodes Scholar from Tennessee, 1905; Fellow in European History, University of Wisconsin, 1908–09, Assistant, 1909–10; Instructor in History, Western Reserve University, 1910–14, Assistant Professor, 1914–17, Associate Professor since 1917; Lecturer in History, University of Tennessee, Summer Session, 1911–12, New York University, 1916, University of Wisconsin, 1918, Cornell University, 1919; Second Lieutenant, Field Artillery, U. S. A., September–December, 1918.

†SCHULTZ, EDWIN WILLIAM, (12) PA 1499J
Associate Professor of Bacteriology, 680 Forest-p

B. S., Winona College, 1913; A. B., Michigan, 1914; M. D., Johns Hopkins, 1917. Special Student in Protozoology, School of Hygiene and Public Health, Johns Hopkins University, Autumn Quarter, 1919–20; Field Director, International Health Board, 1917; Chief of Laboratory, 33d Division, U. S. Army, and Pathologist, Base Hospital No. 42, A. E. F., 1917–18; Chief of Laboratory, A. R. C. Military Hospital No. 9, A. E. F.; Bacteriologist, A. R. C. Commission to Germany, and Chief of Bureau of Medical Research, A. R. C. Commission to Poland, 1918–19; First Lieutenant and Captain, M. C., U. S. A., and Deputy Commissioner (Major, U. S. A.), American Red Cross, 1917–19; Major, M. R. C., U. S. A. At Stanford since January, 1920.

SCHUSSLER, HERMANN, JR., (123) Franklin 1388
Clinical Instructor in Medicine (Pediatrics), 1800 Franklin, SF-sf

B. S., University of California, 1914; M. D., Harvard Medical School, 1918; Assistant Resident Physician, Barnes Hospital, St. Louis (Mo.), 1920.

SCHWARTZ, WILLIAM LEONARD, (234) PA 970
Instructor in French, Stanford Union

A. B., Ohio Wesleyan, 1910; A. M., Stanford, 1920. Professor of English, Kagoshima 7th Government College, Japan, 1910–14, Nagasaki Imperial College of Commerce, 1914–19; Professor of French, College of the Pacific, 1919–20. At Stanford since 1920.

†Sears, Jesse Brundage, (234) PA 1145W
Professor of Education. 270 Stanford-p

A. B., Stanford, 1909; Ph. D., Teachers' College, Columbia, 1920. Student, University of Chicago, Summer Quarter, 1910; Research Scholar, Teachers' College, Columbia University, 1910–11; Instructor in Education, University of Wisconsin, 1909–10; Assistant in Educational Sociology, Teachers' College, Columbia University, Summer Session, 1911. At Stanford since 1911.

†Seay, Wellford Duffy, (1234)
Associate Director of Major Athletics, 17 Alvarado

A. B., Occidental, 1913. Student, University of Southern California, 1913–14; Teacher of History, Pasadena H. S., 1914–17; First Lieutenant 364th Infantry, U. S. A., 1917–19; Teacher of History and Military Commandant, Pasadena H. S., 1919–20. At Stanford since 1920.

†de Setien, Felipe Morales, (4)
Acting Assistant Professor of Romanic Languages (Summer Quarter), 720 Cowper

B. A., Madrid, 1904, Licenciado en Filosofía y Letros, 1913. Graduate Student in Spanish Philology, Centro de Estudios Históricos, Madrid, 1916–17; Pensionado de la Junta Para Amplicacion de Estudios, Madrid; Instructor in Romanic Languages, Stanford University, 1917–19, Summer Quarter, 1920; Assistant Professor of Romanic Languages, University of Southern California, since 1919.

†Sewall, Chester Durbin. (123) Fillmore 3736
Clinical Instructor in Medicine, 350 Post, SF-sf

M. D., Cooper Medical College, 1906. At Stanford since 1914.

†Sewall, Edward Cecil, (123) Fillmore 4242
Clinical Professor of Surgery (Otology, Rhinology, Laryngology), 3515 Pacific, SF-sf

A. B., Stanford, 1898; M. D., Cooper Medical College, 1902. Assistant and Instructor in Ophthalmology, Cooper Medical College, 1901–07, Assistant Professor, 1907–09; Student in Freiburg, 1909–10; Associate Professor of Diseases of Eye, Ear, Nose, and Throat, Cooper Medical College, 1910–12. At Stanford since 1912.

†Seward, Samuel Swayze, Jr., (123) PA 779W
Associate Professor of English, 262 Kingsley-p

A. B., Columbia, 1896, A. M., 1897. Scholar in Literature, Columbia University, 1896–97, Assistant in Literature, 1897–99; Student, Oxford University, 1899–1900; Acting Professor of English, University of Nevada, 1907; Assistant Professor of English, University of California, Summer Session, 1907, University of Oregon, Summer Session, 1908. At Stanford since 1900.

†Shafer, George Daniel, (1234)
Instructor in Physiology, 321 Melville-p

A. B., Indiana, 1900; A. M., Stanford, 1906; Ph. D., Cornell, 1908. Fellow in Entomology and Invertebrate Zoology, Cornell University, 1906–08; Research Assistant, Experiment Station, Michigan Agricultural College, 1908–14, Associate, 1914–17. At Stanford since 1918.

†Shedd, Solon, (14) PA 1052R
Acting Professor of Geology (Autumn and Summer Quarters), 6 Alvarado

A. B., Stanford, 1896, A. M., 1897, Ph. D., 1910. Teacher of Natural Sciences, State Normal School, Monmouth, Ore., 1890–94; Professor of Geology and Mineralogy, Washington State College, since 1896; Assistant State Geologist, Washington Geological Survey, 1909–13; Acting Associate Professor of Geology, Stanford University, Summer and Autumn Quarters, 1921.

SIMPSON, JOHN LOWREY, (4)
Special Investigator, Food Research Institute,
B. L., California, 1913.

†SLOAN, WILLIAM HENRY, (124) PA 1954R2
Assistant Professor of Chemistry, Alta Mesa, Box 105-p
A. B., Stanford, 1903, A. M., 1904. Student, University of Leipzig, 1904–05; Assistant Chemist, San Francisco Board of Health, 1905–06. At Stanford 1903–04, and since 1906.

†SLONAKER, JAMES ROLLIN, (123) PA 451
Assistant Professor of Physiology, 334 Kingsley-p
B. S., Wisconsin, 1893; Ph. D., Clark, 1896. Fellow in Biology, Clark University, 1893–96; with United States Fish Commission, Woods Hole (Mass.), Summer, 1895; Instructor in Zoology, Indiana University, 1896–99, Indiana University Biological Station, 1896–1900; Assistant Professor of Zoology, Indiana University, 1899–1901; Research Assistant in Neurology, University of Chicago, 1901–02, Associate in Neurology, 1902–03. At Stanford since 1903.

†SMITH, EVERETT WALLACE, (123) PA 1041
Associate Professor of English, 21 Alvarado
A. B., Stanford, 1899. At Stanford since 1910.

SMITH, HAZEL C. (MRS.), (1) West 6193
Assistant Superintendent of Nurses, Lane Hospital, SF-sf

†SMITH, JAMES PERRIN, (123) PA 1218W
Professor of Paleontology, 1335 Cowper-p
A. B., Wofford College, 1884; A. M., Vanderbilt, 1886; Ph. D., Göttingen, 1892; LL. D., Wofford College, 1916. Assistant Geologist and Chemist, Arkansas Geological Survey, 1887–90; Assistant Geologist, U. S. Geological Survey, 1895–1906, Geologist since 1906. At Stanford since 1892.

†SMITH, STANLEY ASTREDO, (123) Redwood 285W
Assistant Professor of French, 2 Finger, Redwood-r
A. B., Stanford, 1903, A. M., 1905. Assistant in Romanic Languages, Stanford University, 1903–04, Instructor, 1904–07; Student, Universities of Paris and Madrid, 1906–07; Instructor in French and Italian, University of Washington, 1907–11; Student, Harvard University, 1911–13, Instructor in Romance Languages, 1912–13; Professor of Romance Languages, Reed College, 1913–14. At Stanford 1903–07, and since 1914.

SNELL, ELIZABETH BURRITT (MRS.), (1234) PA 508R
Appointment Secretary, 551 University-p
A. B., Stanford, 1908. At Stanford since 1916.

†SNYDER, JOHN OTTERBEIN, (123) PA 600R
Associate Professor of Zoology, 1345 Cowper
A. B., Stanford, 1897, A. M., 1899. Assistant, U. S. Fish Commission, 1897, 1899, 1904, 1915, 1916; Naturalist on U. S. S. "Albatross" engaged in deep sea investigations, 1902, 1906; Expert Ichthyologist, U. S. National Museum, 1914; Fisheries Expert, Fish and Game Commission of California, since 1919. At Stanford since 1897.

†SOMERS, GEORGE BURBANK, (123) West 6193
Clinical Professor of Gynecology, Lane Hospital, SF-sf
A. B., Harvard, 1886; M. D., Cooper Medical College, 1888. Chief Surgeon, San Francisco Emergency Hospital, 1891–95; Adjunct to Chair of Gynecology, Cooper Medical College, 1889, Professor of Gynecology, 1901; Gynecologist to Lane Hospital, 1900–12. At Stanford since 1911.

†SPALDING, ALFRED BAKER, (124) Fillmore 826
Professor of Obstetrics and Gynecology, 2651 Green, SF-sf

A. B., Stanford, 1896; M. D., Columbia, 1900. House Surgeon, General Memorial Hospital, New York, 1900–01; Assistant Resident Physician, Sloane Maternity Hospital, New York, 1901–02; Instructor in Obstetrics, University of California, 1902–05, Assistant Professor, 1905–09; Professor, 1909–12. At Stanford since 1912.

†SPIRO, HARRY, (123) Fillmore 851
Clinical Instructor in Medicine, 212 Stockton, SF-sf

Ph. G., California, 1893; M. D., Cooper Medical College, 1904. Instructor in Pharmacology, Cooper Medical College, 1905–07. At Stanford since 1919.

STANLEY, EDWARD JOHN, (123) PA 544W
Teaching Specialist in Pattern Making, 269 Hawthorne-p

Machinist with Pacific Iron Works, San Francisco, 1879, Blacksmith, 1880, Draughtsman, 1881, Pattern Maker, 1883–86; Third Assistant Engineer, Steamer "Alabama," 1882; Foreman Pattern Maker, Union Iron Works, San Francisco, 1886–1901, 1906. At Stanford since 1901.

STARKS, CHLOE LESLEY (MRS.), (123) PA 812M
Assistant Professor of Education (Graphic Art), 1115 Ramona-p

At Stanford since 1899.

†STARKS, EDWIN CHAPIN, (123) PA 812M
Assistant Professor of Zoology, 1115 Ramona-p

Assistant in United States Bureau of Biological Survey, 1897–99; Curator of the Museum and Assistant Professor of Zoology, University of Washington, 1899–1900. At Stanford since 1900.

†STEBBINS, HORATIO WARD, (123) PA 316
Assistant Professor of Mechanical Engineering, 327 Addison-p

A. B., California, 1899; B. S., Massachusetts Institute of Technology, 1902. Assistant to Engineer of Tests, Southern Pacific Railroad Company, 1902–05; Engineer and Estimator, San Francisco Bridge Company, 1905–13. At Stanford since 1914.

†STEPHENSON, HENRY AUGUSTUS, (123) Sutter 3560
Assistant Clinical Professor of Obstetrics and Gynecology, 650 Bush, SF-sf

A. B., Randolph-Macon College, 1906; M. D., Johns Hopkins Medical School, 1910. Assistant Resident Obstetrician, Johns Hopkins Hospital, 1911–12, Resident Obstetrician, 1912–14; Assistant in Obstetrics, Johns Hopkins Medical School, 1911–12, Instructor, 1912–14. At Stanford since 1914.

†STEVENS, WILLIAM EMERSON, (123) West 700
Assistant Clinical Professor of Obstetrics and Gynecology, 1007 Gough, SF-sf

M. D., California, 1899. Chief of Genito-Urinary Department, Mount Zion Hospital and Mount Zion Clinics; Chief of Genito-Urinary Department and Department of Urology in Women, San Francisco Polyclinic and Post Graduate School of Medicine; Genito-Urinary Surgeon, Bethlehem Shipbuilding Corporation (Ltd.) Hospital; Gynecological Urologist, San Francisco County Hospital.

STILLMAN, MINNA, (1234) PA 1048
Document Librarian, 2 Alvarado

A. B., Stanford, 1903. At Stanford since 1912.

†STILLMAN, STANLEY, (1234) West 1034
Professor of Surgery, 2336 Broadway, SF-sf

M. D., Cooper Medical College, 1889. Adjunct Professor of Surgery, Cooper Medical College, 1895–98, Professor of Surgery, 1898–1912; Assistant Visiting Surgeon, City and County Hospital, San Francisco, 1891–99, Visiting Surgeon, 1899–1912; Chief Surgeon, Lane Hospital, 1895–1912; Lieutenant Commander, U. S. N. R. F., 1917–19. At Stanford since 1909.

STOLTENBERG, CLARA S., (123) PA 199
Associate Professor of Physiology, 9 Salvatierra

A. B., Stanford, 1896, A. M., 1897. At Stanford since 1896.

†STUART, HENRY WALDGRAVE, (123) PA 1069
Professor of Philosophy, 20 Cabrillo

Ph. B., California, 1893; Ph. D., Chicago, 1900. Teacher, Hollister (Cal.) H. S., 1893–94; Fellow in Political Economy, University of Chicago, 1894–96; Instructor (Pro tem.) in Economics and Psychology, Washington University, St. Louis, 1896–97; Teacher, Central School, Oakland (Cal.), 1897–98; Principal, Woodland (Cal.) H. S., 1898–99; Fellow in Philosophy, University of Chicago, 1899–1900; Instructor in Economics and History, Ripon College, 1900–01; Instructor in Philosophy, State University of Iowa, 1901–04; Acting Professor of Philosophy, Lake Forest College, 1904–05, Assistant Professor, 1905–07. At Stanford since 1907.

SUTLIFF, HELEN BINNINGER, (123) PA 876
Chief Cataloguer, Library, 19 Salvatierra

A. B., Kansas, 1890. Head Cataloguer, University of Kansas Library, 1891–1905; Cataloguer in Columbia University Library, Summer, 1901. At Stanford since 1904.

†SWAIN, ROBERT ECKLES, (123) PA 247
Professor of Chemistry, 10 Cabrillo

A. B., Stanford, 1899; M. S., Yale, 1901, Ph. D., 1904. Student, Universities of Strassburg and Heidelberg, 1901–02, Yale University, 1909–10. At Stanford since 1898.

†TATLOCK, JOHN S. P., (34) PA 1061M
Professor of English Philology, 5 Santa Ynez

A. B., Harvard, 1896, A. M., 1897, Ph. D., 1903. Student, Universities of Michigan, 1899–1901, Freiburg im Breisgau, 1904; Instructor in English, University of Michigan, 1897–1901, 1903–05, Assistant Professor, 1905–07, Junior Professor, 1907–12, Professor, 1912–15; Professor of English, University of Chicago, Summer Quarter, 1909, Dartmouth College, Summer Session, 1914. At Stanford since 1915.

TAYLOR, ALONZO ENGLEBERT, (1234) PA 1368J
Director and Executive Secretary, Food Research Institute.
Kingscote

M. D., Pennsylvania, 1904; LL. D., Wisconsin, 1920. Student, University of Berlin, 1890–91, 1899–1900; Instructor, University of Pennsylvania, 1897–99; Professor of Pathology, University of California, 1900–10; Professor of Pathological Chemistry, University of Pennsylvania, 1910–21. At Stanford since 1921.

TAYLOR, CHARLES VINCENT, (4)
Acting Assistant Professor of Zoology (Summer Quarter),
120 18th st., Pacific Grove-pg

A. B., California, 1911, A. M., 1916, Ph. D., 1918. Teaching Fellow in Zoology, University of California, 1915–18, Instructor, 1918–19, Assistant Professor, since 1920; Johnston Scholar, Johns Hopkins University, 1919–20.

†Templeton, Robert Lyman, (123)
Assistant Director, Major Intercollegiate Athletics, Stanford Union
A. B., Stanford, 1921.

†Terman, Lewis Madison, (1234) PA 1178
Professor of Education, 9 Dolores
A. B., Indiana, 1902, A. M., 1903; Ph. D., Clark University, 1905. Fellow in Psychology and Education, Clark University, 1903–05; Principal of High School, San Bernardino (Cal.), 1905–06; Head of Department of Child Study and Pedagogy, Los Angeles State Normal School, 1906–10; Instructor in Education, Indiana University, Summer Session, 1909, New York University, Summer Session, 1916, Columbia University, Summer Session, 1917; Major, Division of Psychology, Surgeon General's Office, Washington (D. C.), 1918. At Stanford since 1910.

Thomas, Earl Charles, (123) PA 709J
Assistant Professor of Civil Engineering, 1211 Bryant
A. B., Stanford, 1914. Instructor in Railroad Engineering, A. E. F. University, Beaune, France, 1919. At Stanford since 1920.

†Tickell, Frederick George, (123) PA 1417M
Associate Professor of Petroleum Technology, 652 Forest-p
B. S., California, 1912. Engineer at Dawson, Y. T., for the Yukon Gold Co., 1912; Assistant in Mineralogy, University of California, 1913; Engineer, Croesus Gold Mining and Milling Co., 1914–15; Geologist and Petroleum Engineer, Southern Pacific Co., 1916–21. At Stanford since 1921.

†Tolman, Cyrus Fisher, Jr., (1234) PA 1052R
Professor of Economic Geology, 6 Alvarado
B. S., Chicago, 1896. Fellow in Geology, University of Chicago, 1897–98; Consulting Economic Geologist, since 1898; Professor of Geology, University of Arizona, 1905–06, Professor of Geology and Mining, 1906–12; Territorial Geologist of Arizona, 1910–12. At Stanford since 1912.

†Towne, Edward Bancroft, (1234) West 177
Assistant Professor of Surgery, 2605 California, SF-sf
A. B., Harvard, 1906, M. D., 1913. House Officer and Assistant Resident Surgeon, Peter Bent Brigham Hospital, Boston, 1913–15; Honorary Medical Officer, Royal Army Medical Corps, France, 1915–16; Voluntary Assistant, Mayo Clinic, 1916–17; Assistant Resident Surgeon, Bhigham Hospital, and Assistant in Surgery, Harvard Medical School; Lieutenant, Captain, and Major, Medical Corps, U. S. A., A. E. F., 1917–19. At Stanford since 1919.

†Townley, Sidney Dean, (123) PA 1016
Professor of Applied Mathematics, 21 Cabrillo
B. S., Wisconsin, 1890, M. S., 1892; D. Sc., Michigan, 1897. Fellow in Astronomy, University of Wisconsin, 1890–91, Assistant in Astronomy and Mathematics, 1891–92; Hearst Fellow in Astronomy, University of California (Lick Observatory), 1892–93; Instructor in Astronomy, University of Michigan, 1893–95, 1896–98; Student, Universities of Berlin and Munich, 1895–96; Instructor in Practical Astronomy, University of California, 1898–1903, Lecturer in Astronomy, 1904–07; Astronomer in charge of International Latitude Observatory, 1903–07. At Stanford since 1907.

Trace, Gertrude May, (123) SJ 1915M
Instructor in Psychology, 730 University, SJ-sj
A. B., Stanford, 1914. Student, University of Chicago, 1914–15, Stanford University, 1914, 1915, 1916–17. At Stanford since 1917.

†TREAT, PAYSON JACKSON, (3) PA 1128
Professor of History, 8 Dolores

A. B., Wesleyan, 1900; A. M., Columbia, 1903; Ph. D., Stanford, 1910. Instructor in History, Barnard School, New York City, 1900–03; Graduate Student, Stanford University, 1903–05; Research Student in Far East, 1906–07; Instructor in Government, Harvard University, 1908–09; Lecturer in Political Science, University of California, Second Semester, 1915–16. At Stanford since 1905.

TROTTER, REGINALD GEORGE, (234) PA 366J
Assistant Professor of History, 315 Everett-p

A. B., Yale, 1911; A. M., Harvard, 1915, Ph. D., 1921. History Master, Thacher School, Ojai (Cal.), 1911–14; Parker Traveling Fellow in Canadian History, Harvard University, 1916–17; Austin Teaching Fellow in History, 1917–18, Instructor in History, 1918–19; Lecturer in European History, Boston University, April–June, 1918; Lecturer in Charge of War Issues Course, Northeastern College, Fall Term, 1918; Eric Dennis Lecturer in Political Science, Dalhousie University, March, 1919. At Stanford since 1919.

TRUE, HELEN ELLA, (1234) PA 538R
Secretary to the President, 682 University

A. B., Mt. Holyoke, 1905. At Stanford since 1914.

†TUPPER, ROLAND BEATTY, (123) Fillmore 877
Assistant Clinical Professor of Medicine, 2720 Pierce, SF-sf

M. D., Cooper Medical College, 1910. Assistant Visiting Physician, St. Luke's Hospital, since 1912; Assistant in Pediatrics, Cooper Medical College, 1912; Assistant Visiting Physician, San Francisco Hospital, since 1912; on Diagnostic Section, St. Luke's Hospital Clinical Club, since 1915; with U. S. N., Base Hospital No. 2, 1918. At Stanford since 1912.

VAN GENT, CONRAD EUGENE, (123) PA 970
Instructor in Physical Education, Football and Basketball Coach, Stanford Union

B. S., Wisconsin, 1914; Instructor, Wisconsin, 1914–16; Head Coach, Football, Basketball, and Track, University of Texas, 1916–17, 1919; in U. S. Army, 1917–18. At Stanford since 1921.

†VERNIER, CHESTER GARFIELD, (1234) PA 254
Professor of Law, 951 Bryant-p

A. B., Butler College, 1903; J. D., Chicago, 1907. Graduate Scholar, University of Chicago, 1904–05; Instructor in Law, Indiana University, 1907–08; Professor of Law, University of Nebraska, 1908–10, Indiana University, 1909–11, University of Illinois, 1911–16; Lecturer in Law, University of Chicago, Summer Quarter, 1911, 1912, University of Michigan, Summer Session, 1914. At Stanford since 1916.

†VESTAL, ARTHUR GIBSON, (123) PA 602R
Assistant Professor of Biology, 301 Pope

A. B., Illinois, 1911; A. M., Colorado, 1913; Ph. D., Chicago, 1915. Instructor in Biology, University of Colorado, 1911–14, and Summer Sessions, 1919, 1920; Professor of Biological Sciences, Eastern Illinois State Normal School, 1915–20.

WALLACE, MARION HARTWELL (MRS.), (4) PA 1405J
Instructor in Physical Education (Summer Quarter), 235 Melville

WALLIS, LAWRENCE BERGMANN, (123) PA 1042W
Instructor in English, 25 Salvatierra

A. B., Dartmouth, 1918; A. M., Harvard, 1921. Submaster and Teacher of English, Hanover (N. H.) High School, 1919; Instructor in English Composition, Wabash College, 1919–20. At Stanford since 1921.

WALSH, MARY, (234) West 6193
Instructor in Practice of Nursing, Lane Hospital, SF-sf

WARREN, BERTHA HENZEL (MRS.), (12) Bayview 2646
Secretary to Dean of Medical School, 320 Maple, SF-sf
A. B., Stanford, 1906. At Stanford since 1918.

†WEBSTER, DAVID LOCKE, (1234) PA 1028M
Professor of Physics, County Road
A. B., Harvard, 1910, Ph. D., 1913. Assistant in Mathematics, Harvard University, 1909-10, Instructor, 1910–14, Assistant in Physics, 1911–15, Instructor, 1915–17; Assistant Professor of Physics, University of Michigan, 1917; 1st Lieut., Science and Research Division, A. S. S. R. C., later B. A. P., 1917–18, Captain, 1918; Assistant Professor of Physics, Massachusetts Institute of Technology, 1919–20. At Stanford since 1920.

†WELTY, CULLEN FRANCIS, (123) Pacific 1874
Lecturer in Otology, Rhinology, and Laryngology,
18 Presidio Terrace, SF-sf
M. D., Pennsylvania, 1890. Volunteer Assistant, Ear Clinic, University of Vienna, and Private Assistant Docent Doctor Hajek, Vienna, 1901-03; Ear, Nose, and Throat Surgeon, San Francisco Polyclinic and City and County Hospital, since 1903.

†WEST, VICTOR J., (123) PA 291J
Professor of Political Science, 376 Addison
Ph. B., Chicago, 1905. Instructor in English and Civics, Bradley Polytechnic Institute, 1905–06; Fellow in Political Science, University of Chicago, 1908–10, Assistant in Political Science, 1910; Instructor in Politics, Northwestern University, 1910–13; Assistant Chief of Service, Illinois Progressive Service Board, 1913; Instructor in Political Science, University of California, Summer Session, 1915; Special Investigator, U. S. Bureau of Efficiency, 1918. At Stanford since 1913.

†WEYMOUTH, FRANK WALTER, (123)
Associate Professor of Physiology, 3 Salvatierra
A. B., Stanford, 1909, A. M., 1911. Assistant in Physiology, Johns Hopkins University, 1912–13. At Stanford since 1910.

†WHITAKER, ALBERT CONSER, (134) PA 1081J
Professor of Economics, 9 Alvarado
A. B., Stanford, 1899; Ph. D., Columbia, 1904. Scholar in Economics, Columbia University, 1899–1900, Fellow, 1900–01; Student, University of Berlin, 1901; Lecturer in Economics and Social Science, Columbia University, 1906–07; Lecturer in Economics, University of California, Summer Sessions, 1906, 1911; Acting Professor of Economics, University of Chicago, second half of 1911–12 and 1912–13. At Stanford since 1902.

WHITMIRE, ETHEL DOROTHY, (3)
Lecturer in Abnormal Psychology (Spring Quarter),
A. B., Stanford, 1907.

†WHITTIER, CLARKE BUTLER, (1234) Menlo Park 1243R
Professor of Law, Menlo Heights
A. B., Stanford, 1893; LL. B., Harvard, 1896. Attorney at Law, Los Angeles, 1895–96; Student, Stanford University, 1896–97, Instructor in Law, 1897-99, Assistant Professor, 1899–1900, Associate Professor, 1900–02; Professor of Law, University of Chicago, 1902–14. At Stanford 1897–1902, and since 1915.

†WILBUR, RAY LYMAN, (1234) PA 46
President of the University, Lagunita Knoll

A. B., Stanford, 1896, A. M., 1897; M. D., Cooper Medical College, 1899; LL. D., California, 1919, Arizona, 1919. Assistant in Physiology, Stanford University, 1894–96, Instructor, 1896–97, Assistant Professor, 1900–03; Lecturer and Demonstrator in Physiology, Cooper Medical College, 1899–1900; Professor of Medicine and Dean of the Stanford Medical School, 1909–16. At Stanford 1894–97, 1900–03, and since 1909.

†WILDMAN, MURRAY SHIPLEY, (134) PA 1179
Professor of Economics, 37 Salvatierra

A. B., Earlham, 1893; Ph. D., Chicago, 1904. Professor of History and Economics, Central College (Mo.), 1904–05; Instructor in Economics, University of Missouri, 1905–06, Assistant Professor, 1906–08; Acting Assistant Professor, University of Chicago, Summer Quarter, 1909; Assistant Professor of Economics and Commerce, Northwestern University, 1909–11, Professor, 1911–12. At Stanford since 1912.

†WILLIAMS, J. HAROLD, (4) PA 1045
Acting Assistant Professor of Education (Summer Quarter), 5 Cabrillo

A. B., Stanford, 1913, A. M., 1914, Ph. D., 1916. Director of Research, Whittier State School, since 1915.

†WILLIS, BAILEY, (23) PA 1118
Professor of Geology, 5 Lasuen

E. M., Columbia School of Mines, 1878, C. E., 1879; Hon. Ph. D., University of Berlin, 1910. Special Expert, Iron Ores, Tenth Census, 1879–81; Geologist, Northern Transcontinental Survey, exploration for Northern Pacific and Allied Companies, 1881–84; Geologist, United States Geological Survey, in charge Appalachian Division, New York to Alabama, Cascade Range and Puget Sound Division, Washington, and Editor Geologic Atlas of the United States, 1884–1915; Assistant to Director, United States Geological Survey, 1897–1902; Geologist in charge of Division of Areal and Stratigraphic Geology, 1900–06; Geologist engaged in Geological Explorations in China under auspices of Carnegie Institution, 1903–04; Lecturer on Geology, Johns Hopkins University, 1895–1902, University of Chicago, 1909; Consulting Geologist to Minister of Public Works, Argentina, 1911–14; Member, National Academy of Sciences, 1920. At Stanford since 1915.

†WING, CHARLES BENJAMIN, (123) PA 445W
Professor of Structural Engineering, 345 Lincoln

C. E., Cornell, 1886. Fellow in Civil Engineering, Cornell University, 1886–87, Instructor, 1887–90, Assistant Professor, 1890–91; Engineer, Pompton (N. J.) Powder Co., 1887, Phoenix Powder Co., Farmingdale (N. J.), 1888; Assistant Engineer, Berlin (Conn.) Iron Bridge Co., 1889–90; Professor of Bridge and Hydraulic Engineering, University of Wisconsin, 1891–92. At Stanford since 1892.

WINSLOW, CATHARINE, (4)
Instructor in Physical Education (Summer Quarter), 235 Melville

†WOLFSOHN, JULIAN MAST, (23) Fillmore 1526
Assistant Clinical Professor of Medicine (Neurology), 2961 Pacific, SF-sf

A. B., University of California, 1905, M. S., 1907; M. D., Johns Hopkins University Medical School, 1911. Research Assistant, Herzstein Laboratory, University of California, 1906–07; Medical House Officer, Johns Hopkins Hospital, 1911–12; Captain, M. R. C., U. S. A., 1917–19. At Stanford since 1913.

WOOD, BEN D., (4)
Acting Assistant Professor of Education (Summer Quarter),
12 Union

A. B., Texas, 1917; A. M., Columbia, 1921, Ph. D., 1922. Director of Psychological Laboratory, Department of Education, University of Texas, 1916–17; Officer, Division of Psychology, Medical Department, U. S. Army, 1917–19; Assistant to Professor Thorndike, Teachers College, Columbia University, 1919–21; Director, Department of Mental Measurements, State Normal School, Hyannis, Mass., Summer Sessions, 1920, 1921; Assistant to the Dean of Columbia College, and Lecturer in Contemporary Civilization, Columbia University, since 1921.

WOOD, HELEN, (4) PA 1025
Director of Special Course in Nursing (Summer Quarter),
1 Salvatierra

A. B., Mt. Holyoke, 1904. Graduate of Massachusetts General Hospital School of Nursing. Director, Washington University School of Nursing, St. Louis, Mo.

†WOODWARD, FREDERIC CAMPBELL, (4) PA 644
Acting Professor of Law (Summer Quarter), 21 Salvatierra

LL. B., Cornell, 1894, LL. M., 1895; A. M., Dickinson College, 1902. Attorney-at-Law, practicing in New York City, 1895–98; Professor of Law, Dickinson College, 1898–1902; Professor of Law, Northwestern University, 1902–07; Professor of Law, University of Chicago, Summer Quarter, 1908, 1914, University of Michigan, Summer Session, 1915; Dean of Stanford University Law School, 1907–16; Professor of Law, University of Chicago, since 1916.

†WOOLSEY, CHESTER HOWARD, (123) Fillmore 941
Clinical Instructor in Surgery (Genito-Urinary),
2220 Sacramento, SF-sf

B. S., California, 1895, M. D., 1901. Assistant to Chair of Clinical Medicine, University of California, 1902–06; State Bacteriologist, California, 1903–04; Assistant to Chair of Genito-Urinary Surgery, Cooper Medical College, 1911–12; Surgeon in Reserve, U. S. Public Health Service. At Stanford since 1912.

WRIGHT, AUSTIN TAPPAN, (4)
Acting Professor of Law, Stanford Union

A. B., Harvard, 1905, LL. B., 1908. Student, Oxford University, 1906–07; Attorney-at-Law, Boston, Mass., 1908–16; Associate Professor of Law, University of California, 1916–18; Professor of Law, University of California, since 1918; Assistant Counsel, United States Shipping Board and United States Shipping Board Emergency Fleet Corporation, 1918–19; Proctor in Admiralty, San Francisco, since 1919.

WYCKOFF, HARRY ALPHONSO, (123) Oakland 7902
Instructor in Medicine, 417 Oakland, Oakland-o

A. B., Stanford, 1907, M. D., 1916. Head of Department of Physical Education, Los Angeles High School, 1907–12; Bacteriologist, San Francisco Board of Health Laboratories, 1917; Pathologist, Napa State Hospital, 1918. At Stanford since 1919.

†YERINGTON, HENRY HERBERT, (1234) Fillmore 476
Assistant Professor of Medicine (Pediatrics), 2989 Jackson, SF-sf

M. D., Columbia University, 1908. Student, Stanford University, 1900–04, Bellevue Hospital, New York, 1909–10; House Physician, Pediatric Service, Bellevue Hospital, 1909–10; Instructor in Pediatrics, Cooper Medical College, 1910–11; Visiting Pediatrician, San Francisco Hospital, Assistant Visiting Staff, Children's Hospital, San Francisco. At Stanford since 1913.

YOST, MARY, (1234) PA 1203
Dean of Women, and Associate Professor of English, 2 Lausen

A. B., Vassar, 1904, A. M., 1912; Ph. D., Michigan, 1917. Graduate Scholar, Vassar College, 1904–05; Fellow, University of Michigan, 1913–15; Assistant in English, Wellesley College, 1906–07; Instructor in English, Vassar College, 1907–13; Assistant Professor, 1915–21; Reader, College Entrance Examination Board, 1912–18, Head Reader and Examiner, 1918–21. At Stanford since 1921.

†YOUNG, KARL, (4) PA 1081R
Acting Professor of English (Summer Quarter), 29 Salvatierra

A. B., Michigan, 1901; A. M., Harvard, 1902, Ph. D., 1907. Professor of English, University of Wisconsin, since 1908.

YOUNG, STEWART WOODFORD, (123)
Professor of Physical Chemistry, Menlo Heights

B. S., Cornell, 1890. Assistant in Chemistry, Cornell University, 1890–91; Instructor in Chemistry, Swarthmore College, 1891–93. At Stanford since 1893.

†ZOBEL, ALFRED JACOB, (123) Pacific 119
Lecturer on Proctology, 352 Lake, SF-sf

M. D., Cooper Medical College, 1898. Assistant Prosector, Anatomy Department, Cooper Medical Department, 1899–1900, Assistant Medical Clinic, 1899; Assistant Medical Clinic, San Francisco Polyclinic, 1901–03, Associate Professor in Medicine, 1904–05, Associate Professor of Proctology, 1906–09, Chief of Department of Rectal Surgery, since 1909; Consulting Rectal Surgeon, Mt. Zion Hospital, 1917; Visiting Rectal Surgeon, San Francisco Hospital, since 1908. At Stanford since 1918.

ASSISTANTS IN INSTRUCTION AND RESEARCH

Aho, Leonard, English, (123) 430 Kipling-p
A. B., Stanford, 1920, A. M., 1921.

†Annard, Percy Nicol, General Biology, (123) (PA 1466W) 111 Bryant-p
B. S., Colorado Agricultural College, 1920.

Armitstead, Reo B., Anatomy, (1) 420 Encina
A. B., Stanford, 1921.

†Ashley, Rea, Surgery, (1234) 216 4th St., SF-sf
B. S., University of Illinois, 1917, M. D., 1919. Assistant, Department of Bacteriology and Pathology, University of Illinois, 1917–19; Assistant Resident Physician, Stanford University Hospital, 1919–21.

Bailiff, Laurence Deane, Romanic Languages, (1234) University Hotel
A. B., Stanford, 1918, A. M., 1919.

Barber, Ruth, English, (123) (PA 891J)
Atherton (Box 34, Redwood City)
B. A., Wells College, 1919.

Barnes, Wallace Harold, Medicine, (1234) 741 Phelan Bldg., SF-sf
M. D., Jefferson Medical College, 1918. At Stanford since 1920.

Becker, George Henry, Medicine (Dermatology), (1234)
(Douglas 112) 240 Stockton, SF-sf
A. B., University of California, 1916; M. D., Stanford, 1921.

Bennett, Mabel, Medicine (Neurology). (1234)
A. B., Stanford, 1914, M. D., 1920.

Benzinger, MartinT., Medicine, (234) 516 Sutter, SF-sf

Borthwick, Harry Alfred, General Biology, (123) 359 Encina
A. B., Stanford, 1921.

Boswell, Paul Frederick, Metallurgy, (23) 450 Melville
A. B., University of Southern California, 1919.

Brown, George Dewey, Anatomy, (12) 628 Cowper-p
A. B., Stanford, 1921.

Burdick, William Leroy, Chemistry, (4) 1740 Middlefield-p
A. B., Kansas, 1909, A. M.,1912.

Burk, Georgina, Physical Education, (123) Cowper Court-p

Burr, Susan Sophia, Economics, (23) (PA 1025) 1 Salvatierra
A. B., Vassar, 1920.

Campbell, John Lockhart, Clinic Dentist, (1234) 1820 62d st., Berkeley-b

Campbell, Mary Edna, Romanic Languages, (23) 252 Roble
A. B., Stanford, 1922.

Clay, Harry E., Obstetrics and Gynecology, (1234) (Fillmore 1540)
2710 Baker, SF-sf
M. D., Rush Medical College, 1904. House Surgeon, Passavant Memorial Hospital, 1904–05; Assistant Professor of Surgery, Willamette University (Ore.), 1911–12; Chair of Gynecology, Willamette University, 1912–15; Member, Oregon State Board of Health, 1916, until entry into service; Captain, U. S. A., 1917, Major, 1918.

Cody, Bernard Anthony, Anatomy, (1) 232 Encina
A. B., Stanford, 1921.

Coe, Harry Carson, Medicine. (4)
A. B., Stanford, 1918, M. D., 1922.

Cooper, Harold John, Surgery, (34) (Garfield 1249) 516 Sutter, SF-sf
A. B., Stanford, 1917, M. D., 1921. Resident Physician, St. Mary's Hospital, San Francisco, 1921–22.

Craig, Wallace Alexander, Chemistry, (23) 6 Salvatierra
A. B., Stanford, 1922.

Crever, Dorothy, Mathematics, (23) 304 Roble
A. B., Stanford, 1921.

Davis, Hester Ruth, Botany, (134) 362 Lincoln, Mayfield-m
A. B., Stanford, 1921, A. M., 1922.

†Demond, Earle Frank, Chemistry, (12) 723 Hamilton-p
A. B., Stanford, 1921.

Donaldson, Dorothy Ellen, Romanic Languages, (123) 737 Webster-p
A. B., Stanford, 1921.

†Dougan, Stanley, Anatomy, (1) 856 Middlefield-p
B. S., Ohio State, 1914.

†Dudley, Hubert W., Medicine, (1234) 231 Bay View, San Rafael-sr
M. D., Jefferson Medical College, 1888; M. D., Central College of Physicians and Surgeons, 1899. House Surgeon, New York Aural and Ophthalmic Hospital, 1900–01; Clinical Assistant and Special Student, Massachusetts General Hospital, 1910–11.

Ehrenclou, Alfred Hjalmar, Neurology, (1)
A. B., Stanford, 1914, M. D., 1917.

Ellis, Wilder P., Eye Clinic, (34) 2229 Carlton, Berkeley-b

d'Ercole, Victor, Surgery. (4)

Fast, Lisette Emery, Food Research Institute, (234) 528 Lincoln
A. B., Stanford, 1919.

†Fitch, Frank Brewer, Chemistry, (123) (PA 1259J)
141 Amherst, Mayfield
A. B., University of Southern California, 1909.

Frazier, Mildred Lucile, Physics, (123) (PA 1328W) 353 Addison-p
A. B., University of Wisconsin, 1919, A. M., 1921.

von Geldern, Hans, Obstetrics and Gynecology, (1234)
Stanford Hospital, SF-sf
A. B., University of California, 1916; M. D., Stanford, 1920.

†Glaeser, W. Edward, Medicine, (1234) (Valencia 2369)
3007 24th st., SF-sf
M. D., Hahnemann (U. C.), 1918. Interne, San Francisco Hospital, 1917–18, Resident Physician, Tuberculosis Department, since 1918.

Graves, John, Medicine (Pediatrics), (1234) 977 Valencia, SF-sf
A. B., Stanford, 1916, M. D., 1920.

Guilfoil, James Anthony, Medicine, (1234) (Prospect 344)
611 Medical Bldg., SF-sf
M. D., Michigan, 1911. Resident Physician, St. Francis Hospital, 1911–12; First Lieutenant, U. S. A., 1918–19.

Gwinn, Charles Dudley, Dental Clinic, (34) (Garfield 885)
130 32d ave., SF-sf
D. D. S., California, 1917. Lieut., Dental Corps, U. S. N. R. F., 1917–19. Instructor in Extraction, Dental Department, University of California, since 1919; Visiting Dentist, French Hospital, since 1920.

†Hadsel, Fred Latimer, (12) 453 Channing-p
A. B., Upper Iowa University, 1902; A. M., Yale, 1906.

Hall, Helene Marie, Romanic Languages, (123) (PA 1059) Signa Kappa
A. B., Stanford, 1920.

Hansen, Hazel Dorothy, Greek, (123) (SM 1166)
402 Tilton, San Mateo-sm
A. B., Stanford, 1920, A. M., 1921.

Hardy, Anne, Psychology, (123) (PA 1033) 12 Lasuen
A. B., Stanford, 1921.

Heare, Louis Charles, Surgery (Ophthalmology), (1234)
Southern Pacific Hospital, SF-sf
A. B., University of Texas, 1918, M. D., 1920. Interne, Southern Pacific General Hospital, San Francisco, 1920–21.

Hobe, Adelaide, Food Research Institute, (4)
Stanford Park, Menlo Park-mp

†Hobdy, William C., Surgery, (1234) (Garfield 829)
740 Flood Bldg., SF-sf

B. S., Kentucky, 1893; M. D., Columbia, 1896. House Surgeon and Physician, Patterson General Hospital, 1896–98; U. S. Public Health Service, 1898–1910; Visiting Surgeon, Queen's Hospital, Honolulu, 1912–13, 1915–16, 1918–19; Member Territorial Board of Health, Honolulu, 1911–21.

Hughes, Thomas Patrician, Chemistry, (14) 566 Everett-p

A. B., Stanford, 1921, A. M., 1922.

Jacobs, Jay, Medicine, (4) 779 9th ave., SF-sf

M. D., Cooper Medical College, 1911. Lieut., Medical Corps, U. S. N., 1917–20.

Jacobsen, Peter N., Women's Clinic (Obstetrics and Gynecology), (1234) (Lakeside 5127) 479 Cheney, Oakland -o

B. S., Healdsburg College, 1901; M. D., Cooper Medical College, 1905. Interne, French Hospital, San Francisco, 1903–06; Student in Vienna, 1912–13.

†Johnson, Oliver Wolcott, Chemistry, (123) (PA 947J) 333 Lincoln-p

A. B., Stanford, 1921.

Kelly, T. H., Medicine, (12) (Fillmore 5518) 240 Stockton, SF-sf

Kerr, Paul Francis, Geology, (4) Livermore-l

B. S., Occidental, 1919.

Kile, Robert, Medicine (Physiotherapy), (234) Stanford Hospital, SF-sf

King, Kathleen F. C., Food Research Institute, (234) 3 Lasuen

Kinney, Paul Burt, Anatomy, (12) 8 Salvatierra

A. B., Stanford, 1921.

Kildale, Malcolm Brus, Geology, (4) Livermore-l

A. B., Stanford, 1921.

Kinslow, Frank A., Medicine, (1234) (Prospect 1664)
2400 Van Ness, SF-sf

M. D., Cooper Medical College, 1906. Interne, St. Joseph's Hospital, 1906–07; First Lieutenant, M. C., U. S. A., 1918–19.

†Kirk, Josiah H, Surgery (Ear, Nose, Throat), (1234) (PA 1099)
251 Embarcadero-p

M. D., Cooper Medical College, 1906.

Kistler, Ray Henry, Surgery, (1234) 516 Sutter, SF-sf

A. B., Stanford, 1915, M. D., 1919.

Kraemer, Mary Webster (Mrs.), Latin, (4) Kingscote

A. B., Stanford, 1897, A. M., 1917.

†Kroll, Frederick Walter, Medicine, (1234) 1238 Washington, SF-sf

M. D., Cooper Medical College, 1912. Assistant, Obstetrics and Gynecology, 1914, Instructor, Materia Medica, Lane Hospital, 1913–14; Captain, M. R. C., U. S. A., 1916–18.

†Lanz, Henry, Slavic, (1234) 918 Cowper-p

Lee, Russell van Arsdale, Medicine, (1234) (Douglas 5726) 177 Post, SF-sf

B. S., University of California, 1917; M. D., Stanford, 1920.

†von der Lieth, Harold Otto, Surgery, (1234) (Park 8247) 1035 Ashbury, SF-sf

Ph. G., California, 1893; M. D., Cooper Medical College, 1897. Interne, German Hospital, San Francisco, 1898; Assistant Police Surgeon, San Francisco, 1898–1901; Volunteer Assistant, Berlin and Vienna, 1902–03; Instructor, Operative Gynecology, Cooper Medical College, 1904–06; in Charge Out-Patient Department, German Hospital, 1906–13; Graduate Work, Vienna and Berlin, 1914.

McPherson, James Douglas, Geology, (4) Livermore-l

A. B., Stanford, 1920, A. M., 1922.

Mason, Herbert Louis, Botany, (2) 415 Encina

Maurer, Mildred Leanor, English, (3) 15 Lasuen

A. B., Stanford, 1921.

Mentzer, Mary Jones (Mrs.), Medicine, (1234) (Prospect 4530) 909 Hyde, SF-sf

M. D., Woman's Medical College, Pennsylvania, 1905. Resident Physician, Sheltering Alms, Philadelphia, 1906–08; S. F. Polyclinic, 1916–18, 1919–20. On active staff, Arequipa Sanitarium, since 1916.

Michael, William Manford, English, (1) 6 Salvatierra

A. B., Illinois, 1920.

Michelson, Lewis, Obstetrics and Gynecology, (1234) (Fillmore 3685) 1562 Vallejo, SF-sf

M. D., Cooper Medical College, 1917. Student, Vienna, 1910–11; Special Worker, Brady Urological Institute, Johns Hopkins University, 1916–17; Director of Bureau of Social Hygiene, California State Board of Health, since 1918. At Stanford since 1917.

†Moore, Harold Staats, Surgery, (1234) 2310 Divisadero, SF-sf

M. D., Medical College of Indiana, Purdue University, 1898. Assistant Surgeon, U. S. A., 1910–11; Assistant, Ear, Nose, and Throat Clinic, Cooper Medical College, 1910.

†Munger, Arthur Lee, Medicine, (1234) (Prospect 344) 909 Hyde, SF-sf

A. B., Stanford, 1910, M. D., 1913.

Newsom, John Branner, Geology, (4) Livermore-l

A. B., Stanford, 1922.

Nesbit, Reed Miller, Anatomy, (1) 227 Encina

A. B., Stanford, 1921.

†Nobbs, Arthur, Assistant Clinical Dentist, (1) 134 Hugo, SF-sf

Nye, Helena M., German, (123) (PA 1189J) 281 Addison-p

A. B., Stanford, 1905.

Osuna, Anita Maria, Romanic Languages, (123) Roble

A. B., State University of New Mexico, 1921.

Pasmore, Edith Edwina, Physical Education, (123) (PA 1025) 1 Salvatierra

A. B., University of California, 1920.

Peters, Gertrude Marian, Romanic Languages, (123) 208 Roble
A. B., Stanford, 1920.

Presho, N. Elizabeth, Pharmacology, (1234) (Fillmore 3154)
2525 Steiner, SF-sf
A. B., Stanford, 1921.

†Price, Merton James, Surgery (Ear, Nose, Throat), (12)
(Douglas 6440) 1211 Flood Bldg., San Francisco-sf
A. B., Stanford, 1913, M. D., 1916.

Pruett, Harry Jeroam, Medicine, (1) 240 Stockton, SF-sf
A. B., Stanford, 1912, M. D., 1917. Interne, San Francisco Hospital, 1918; Captain, M. C., U. S. A., 1918–19.

Rethwilm, Lorruli Anna, Surgery (Anesthesia), (1234)
Stanford Hospital, SF-sf
A. B., Washington University, 1913; M. D., Stanford, 1917.

Reynolds, Lloyd R., Surgery (Genito-Urinary), (1234)
(Fillmore 3678) 2620 Laguna, SF-sf
A. B., Stanford, 1915, M. D., 1920.

Ritchie, Kenneth Sinclair, Chemistry, (1) 504 Encina
A. B., Stanford, 1921.

Robinson, Alfred A., Medicine (Neurology), (1234) (Franklin 5400)
1499 Sutter, SF-sf

Rooney, Henry T., Medicine, (1234) 350 Post, SF-sf
M. D., Cooper Medical College, 1902. Resident Physician, Lane Hospital, 1902–06; Captain, U. S. A., 1918–19.

Sappington, Clarence Olds, Women's Clinic, (1234) 980 Bush, SF-sf
A. B., Whitman College, 1911; M. D., Stanford, 1918. Interne, San Francisco Hospital, 1918; Assistant Resident Physician, Sacramento County Hospital, 1918–19; Assistant Resident Physician, San Quentin State Prison, 1919.

Schurz, Franklin D., Food Research Institute, (4) Kingscote

Scott, Ralph S., English, (23) Kingscote
A. B., George Washington University, 1921.

Seay, Claire Soulé (Mrs.), English, (12) 17 Alvarado
A. B., Stanford, 1905.

Shannon, George Pope, English, (23) Belmont School, Belmont-b
A. B., Vanderbilt, 1917.

Silverman, George A., Food Research Institute, (4) 20 Lasuen

Sisk, Benjamin Franklin, English, (1) 426 Ramona-p

Smith, Jessie Edna, Romanic Languages, (123) 555 Lytton-p
A. B., Stanford, 1916, A. M., 1917.

Somerfield, Harry Alexander, Anatomy, (12) 49 Sequoia
A. B., Stanford, 1921.

deSouza, Luis José, Romanic Languages, (123) 45 Sequoia
A. B., Stanford, 1921.

†Stadtherr, Edward F., Neurology, (34) 1030 Lombard, SF-sf
M. D., St. Louis University. Past Assistant Surgeon, U. S. N., 1917–22.

Starkey, Charles W., Chemistry, (2) 115 Everett
A. B., Stanford, 1921.

Stauf, Ida, Romanic Languages, (123) (PA 498M) 727 Bryant-p
A. B., Stanford, 1910, A. M., 1912.

†Strickler, John Philip, Surgery, (1234) (Sutter 2278) Flood Bldg., SF-sf
A. B., Stanford, 1913, M. D., 1916. First Lieutenant, M. C., U. S. A., 1918–19.

Swarts, Clifton Ray, Geology, (4) Livermore-1
A. B., Stanford, 1920.

Swett, Wilber Frank, Surgery (34) San Francisco Hospital, SF-sf
A. B., Stanford, 1917, M. D., 1922.

Talbot, Edward M., Surgery, (4) Hotel Claremont, Berkeley-b
M. D., Georgetown, 1901. Lieut. Colonel, Medical Corps, U. S. A., retired.

Terman, Frederick Emmons, Applied Mathematics, (12) (PA 1178) 9 Dolores
A. B., Stanford, 1920.

Tuckey, Harry A., Consulting Dentist, (1234) (Sutter 2269) (S. F. Hospital) 209 Post, SF-sf

Tufts, John M., Medicine, (1234) (Pacific 1410) 16 17th ave., SF-sf
A. B., Stanford, 1916, M. D., 1920.

Van Winkle, Edward Hasbrouck, Economics, (3) 405 Kipling-p
B. S., Harvard, 1920.

†Vickery, Frederick Paul, Geology, (4) Livermore-1
B. S., California, 1905; A. M., Stanford, 1919.

Wallace, Whittier W., Mathematics, (12) (SJ 4993J) 857 S. 2d, SJ-sj
A. B., Stanford, 1921.

Walton, Clarence Eldon, English, (13) 427 Embarcadero
A. B., Bates, 1920.

Watters, Hallie (Mrs.), Greek, (4) 633 Channing-p
A. B., Stanford, 1922.

Wells, Clinton Fisk, Economics, (1234) (SJ 4461J) 622 Vendome, SJ-sj
A. B., Stanford, 1920, A. M., 1920.

Wheeler, Horace Edward, Applied Mathematics, (124) 542 Encina
A. B., Stanford, 1921.

Winsor, Lucy Burton, Economics, (1) 1 Salvatierra
A. B., Vassar, 1919; A. M., Stanford, 1921.

Woodbridge, Elizabeth Dana, Romanic Languages, (123) (PA 1477J) 7 Alvarado
A. B., Vassar, 1907; A. M., Stanford, 1918.

†Wright, Frederick Leven, Surgery, (1234) 1487 Sacramento, SF-sf
M. D., University of Louisville, 1892. At Stanford since 1919.

TECHNICAL ASSISTANTS

Anderson, Doris Evelyn, Bacteriology, (1234) (PA 1077) Gamma Phi Beta

†Banham, Frank D., Mechanician, Mechanician Shop, (1234) 425 Waverley-p

Barber, William Richmond, Chemistry, (123) 659 Melville-p

Barrett, Frank C., Anatomy, (1234) (PA 1094W) 359 Emerson-p

Bartlett, Emily, Anatomy, (1234) (PA 1025) 1 Salvatierra

Bell, May Kirk (Mrs.), Secretary, Entomology, (1234) (PA 845W) 532 Homer

Berger, Alice R., Chemistry, (1234) 73 N. 6th, San Jose

Blewett, Frances, Stenographer, Food Research Institute, (234) 567 Lincoln-p

†Borrow, Sidney W., Physics, (1234) 1112 High-p

Boulware, Alice, Secretary, Physiology, (3) 170 Bryant-p

Boulware, Edna, Secretary, Chemistry, (1234) (PA 403J) 170 Bryant-p

†Bruce, Walter Johnson, Chemistry, (1234) (PA 342W) 415 Florence-p

Burk, Georgina M., Secretary, Roble Gymnasium, (1234) (PA 1185M) Cowper Court

Curtis, Wilmetta, Secretary, Physiology, (12) 567 Lincoln

Edwards, Muriel Emma, Secretary, Economics, (1234) Roble
A. B., Stanford, 1921.

Evans, Susan Le Count (Mrs.), Librarian, Education, (1234) (PA 1469W) 555 Waverley-p

Ferris, Roxana Stinchfield (Mrs.), Botany, (1234) (PA 1145M) 667 Melville

Ford, A., Museum, (123)

Ford, Gertrude, Stenographer, Food Research Institute, (34) 1 Salvatierra

Fries, Gilbert, Mechanical Engineering. (1234)

Hill, Clara E. (Mrs.), Secretary, Physics, (1234) (PA 508R) 551 University-p

Huskey, Anne K. (Mrs.), Secretary, Civil Engineering, (1234) (PA 653W) 1376 Emerson

Ignacio, Frank, Museum. (4)

Lyons, Patrick Henry, Anatomy, (234) 525 Channing-p

Lemos, Frank B., Museum, (1234) 835 Webster-p

†Lemos, John T., Art Gallery, (1234) 261 Homer-p

McDermoth, Nan A. (Mrs.), Secretary, Publicity, (123) (PA 1129R) 790 Palo Alto-p

†McInnis, Peter, Custodian, Encina Gymnasium, (1234) (PA 529R) 201 Stanford, Mayfield-m

McKendry, Marion, Secretary, Law, (1234) Kingscote

Melsome, Dorothy A., Secretary, Economics, (1234) Los Altos-la

†Moffitt, George W., Military Training, (1234) (PA 239M) 159 Palo Alto, Mayfield-m

Murray, Katherine, Secretary, Psychology, (1234) (PA 1219J) 1011 Fulton-p

Oldroyd, Ida S. (Mrs.), Curator, Geology, (1234) (PA 198) 10 Alvarado

†Oldroyd, Thomas S., Assistant Curator, Geology, (1234) (PA 198) 10 Alvarado

†Scott, Thomas Benjamin, Storekeeper, Chemistry, (1234) Mayfield-m

Seaman, Olive P. (Mrs.), Secretary, Military Training, (1234) (PA 1042W) 25 Salvatierra

Snedden, Donald Scott, Encina Gymnasium, (4) 28 Lasuen

Stuart, Burton, Physics, (1234) Mayfield-m

Tanner, Hilda V. (Mrs.), Secretary, Mining, (1234) (PA 413) 1111 High-p

Tyler, Rose T. (Mrs.), Secretary, History, (1234) 336 Everett-p

†Uhlman, Walter, Engineer, Mechanical Engineering, (1234) 305 Emersson-p

ASSISTANTS IN ADMINISTRATION

OFFICE OF THE PRESIDENT

Bunt, Emily S. (Mrs.), Stenographer, Appointment Secretary's Office, (1) 1931 Waverley-p

Cannon, Violet (Mrs.), Chief Assistant, Appointment Secretary's Office, (1234) 446 Ruthven-p

Curry, Elizabeth, Appointment Secretary's Office, (34) 1146 Waverley-p

Griffiths, Ione, Departmental Secretary, (234) 1195 Alameda, San Jose-sj

Morris, Josephine, Filing Clerk, Appointment Secretary's Office, (1) 1 Salvatierra

Owen, Lillian Caroline, Appointment Secretary's Office, (34) 34 Lasuen
A. B., Stanford, 1920.

Perry, Frances, Secretary to Dean of Women, (12) 1 Salvatierra

Petty, Mary (Mrs.), Appointment Secretary's Office, (34) 34 Lasuen

Price, Marjorie S. (Mrs.), Departmental Secretary, (1234) 549 Cowper-p

Ramsey, Agnes Craig (Mrs.), Mimeographer, (1234) 20 Lasuen
Sterling, Mary Louise, Secretary to Dean of Men. (34)
Stokes, Blanche, Secretary to Alumni Secretary, (12) 243 Cowper-p
Townley, Lucile, Secretary to Dean of Men, (12) (PA 1016) 33 Salvatierra
Trist, Marian Abigail, Secretary to Alumni Secretary, (34) 375 Everett-p

OFFICE OF THE REGISTRAR

Brand, Elizabeth Morgan, (1234) (PA 1270J) Kingscote
Fordyce, Elizabeth, (1234) Kingscote
Nagel, Laura I., (1234) (LA 126J) Los Altos-la
Peterson, Blanche P., (1234) 420 Oregon-p
Puhara, Alice Holmes (Mrs.), (1234) College Terrace, Mayfield
Remele, Miriam Frances, (1234) 367 Addison-p

LIBRARY

Alderton, Barbara, Assistant, Catalogue Division, (1234) (PA 973J) 915 Channing-p
Beach, Susan, (34) 540 University-p
Bickham, Edith, Cataloguer, Hoover War Library, (123) 481 Lytton-p
Craig, Florence M., Cataloguer, (1234) Redwood City-rc
Crandall, Harriet Ruth, (12) (PA 1090) 737 Waverley-p
Crutcher, Ruth Cary, Secretary, (1) 531 Cowper-p
Davis, Herbert Adlington, Law Librarian, (234) (L 63) 233 Encina
Davis, Ruth May, Order Division, (234) Mayfield-m
Gale, Helen Avery, Serial Division, (1234) (PA 1205W) 940 Waverley-p
Hyde, Lillian, Reference Division, (1234) (PA 947W) 334 Lincoln-p
Jertberg, Gilbert Henry, Law Librarian, (1) 16 Alvarado
A. B., Stanford, 1920, J. D., 1922.
Katz, Louise W., Cataloguer, (1234) (PA 1025) 1 Salvatierra
Kelly, Dorothy, Serial Division, (1234) (PA 600W) 1236 Cowper-p
Knipmeyer, Gilbert, (1234) 1001 Ramona-p
Main, Norman Francis T., (4) 315 Union
Meers, Edith, Serial Division, (1234) (PA 923W) 1710 Waverley-p
Nelson, Ina F., Cataloguer, (234) 1 Salvatierra
Owens, William. (123)
Potter, Margaret, Cataloguer, Lane Medical, (1234) 415 Bellevue, Oakland-p

Richards, Ruth, Secretary to the Librarian, (1234) (PA 1025) 1 Salvatierra
Scibird, Ruth E., Serial Division, (4) 21 Cabrillo
Secker, Georgia Pearl, Cataloguer, (1234) (PA 611M) 545 Bryant-p
Starkins, Franklin E., (4) 541 Seale-p
Stillson, Grace Elizabeth, Cataloguer, (1234) (PA 543M) 451 Ruthven-p
Swacker, Gladys Grace, (4) 163 Roble
A. B., Stanford, 1922.
Thompson, Georgia, (34) 10 Salvatierra
A. B., Stanford, 1922.
Todd, Hannah Lilian, Bindery, (1234) (PA 450) 336 Everett-p
Tum Suden, Linda, Lane Medical. (1234) (West 2527)
Wickes, Florence L., Cataloguer, Lane Medical, (1234) 519 Webster, SF-sf
Wilson, Hattie, Cataloguer, Lane Medical, (1) 2105 California, SF-sf

OFFICE OF THE COMPTROLLER

Accounting Department

(†Erwin, Ernest S., Accountant.)
Barker, Nettie H. (Mrs.), Stenographer, (1234) (PA 361J) 633 Hamilton-p
†Fisher, E. T., Head Bookkeeper, (1234) (PA 992J) 601 Channing-p
Hall, Elsie (Mrs.), Relief Private Exchange Operator, (1) 645 Lytton-p
John, Gertrude, Clerk, (1234) (PA 540R) 628 Waverley-p
Lardi, Albertram, Private Exchange Operator, (12) (PA 730M) 624 University-p
Lucas, Charles F., (2) (PA 568R) 563 Addison-p
Malarkey, Edith (Mrs.), Private Exchange Operator, (1) 367 Addison-p
Matheson, Margaret M., Cashier, (1234) (PA 783J) 618 Channing-p
Meyrick, Geraldine, Secretary to Accountant, (1234) (PA 622R) 356 Addison-p
Rolley, Lucy B. (Mrs.), Private Exchange Operator, (4) 616 Forest-p
Ross, Chester, Bookkeeper, (1234) Stanford Univ.
Smith, Gladys B. (Mrs.), Bookkeeper, (1234) (PA 245J) Stanford Univ.
†Stone, Chas. F., Cost Clerk, (1234) 367 Everett-p
Taff, Marvel (Mrs.), Private Exchange Operator, (34) 435 Forest-p
Thomas, Donald R., Bookkeeper, (1234) (PA 461W) 656 Bryant-p
White, Alma B., Clerk, (34) 1400 Howard, Burlingame-b

Stanford University Hospital, San Francisco

Olney, V. N., Head Bookkeeper, (1234) 1798 Grove, SF-sf
Carol, Ruth, Clerk, (1234) 2309 Sacramento, SF-sf
Erickson, Emma H., Bookkeeper, (1234) 447 22d ave., SF-sf
Fouts, Olive M., Pay Roll Clerk, (1234) 1662 O'Farrell, SF-sf
Griffin, H. E., Night Clerk, (1234) 1936 Post, SF-sf
Leik, Anna Julia, Cashier, (1234) 1538 Clay, SF-sf
Lutley, Edythe L., Bookkeeper, 1747 Cole, SF-sf

Corporation Yard

(Keefer, Chauncey Tennent, University Engineer.)
†Allen, Everett A., Foreman Plumber, (1234) (MP 954) Stanford Park
†Hackenburger, Wm., Clerk Yard Office, (1234) (PA 519J) Stanford Univ.
†McDonnell, J. W., Foreman Electrician, (1234) 618 Fulton
†Nyquist, I. A., Foreman of Grounds, (1234) (PA 519W) Stanford Univ.
†Schilling, John C., Foreman Carpenter, (1234) 622 Ramona-p
†Smith, George B., Foreman Painter, (1234) 253 Homer-p
†Waterman, Edward H., Chief Engineer, Power House, (1234) 567 Lytton-p

Dormitories

Gardiner, Gertrude, Matron, Roble Hall, (1234) Roble Hall
Henderson, J. R., Custodian, Encina and Sequoia Halls, (1234) 3 Sequoia

Foreman Outside Properties

†Frehe, Fred W., (1234) Stanford Univ.

Purchasing Department

Widman, Fred., Purchasing Agent and Storekeeper, (1234) Stanford Univ.
Price, Verona, Secretary to Purchasing Agent, (1234) (PA 459R) 602 Webster-p

Purchasing Department, Stanford University Hospitals

†Slack, Ellard L., Purchasing Agent and Storekeeper, (1234) Burlingame-b
Fitzgerald, Eugene G., Assistant Storekeeper, (12) 2463 Sacramento, SF-sf
Hanley, Rose B , Stenographer, (1234) 2502 McAllister, SF-sf
Suter, Henrietta, Assistant Storekeeper, (1234) 621 11th ave., SF-sf

University Press

(†Friend, Will A., Superintendent.)

de Bonnet, Leslie, Foreman Composing Room, (1234)	Burlingame-b
†Borsdamm, John, Foreman Bindery, (1234)	1729 Emerson-p
Church, Vivienne, Clerk, (1234) (PA 1466J)	262 Hawthorne-p
†Davis, Robert H., Editor and Proofreader, (234)	704 Bryant-p
Graham, Claribel, Proofreader, (4)	Mountain View-mv
Ingraham, Eleanor R., Proofreader, (1)	Los Altos-la
†Smith, C. B., Foreman Pressroom, (1234)	112 Melville-p

OFFICE OF THE TREASURER

†Blodgett, David P., Chief Clerk, (1234)	556 Vernon, Oakland-o
Frost, Maude L., Stenographer, (12)	701 Post, SF-sf
Rose, Jessie E., Stenographer, (34)	2015 8th st., Berkeley-b

BOARD OF ATHLETIC CONTROL

†Millar, A. E., Accountant, (1234) (Redwood 704W)	Woodside

ORGANIZATION

Foundation

STANFORD UNIVERSITY was established under an Act of the California Legislature, approved March 9, 1885. The Founding Grant, executed November 11, 1885, was made public at a meeting of the Board of Trustees, held in San Francisco, November 14, 1885. The cornerstone of the inner quadrangle was laid May 14, 1887, and the institution opened to students October 1, 1891.

Nature, Object, and Purposes of the University

"We, Leland Stanford and Jane Lathrop Stanford, husband and wife, grantors, desiring to promote the public welfare by founding, endowing, and having maintained upon our estate known as the Palo Alto Farm, and situated in the Counties of San Mateo and Santa Clara, State of California, United States of America, a university for both sexes, with the colleges, schools, seminaries of learning, mechanical institutes, museums, galleries of art, and all other things necessary and appropriate to a university of high degree, to that end, and for that purpose, do hereby grant," etc.

"And that the trust hereby created may be executed according to the wishes of the grantors and each of them, they do hereby designate the Nature, Object, and Purposes of the Institution hereby founded, to be: Its nature, that of a University, with such seminaries of learning as shall make it of the highest grade, including mechanical institutes, museums, galleries of art, laboratories, and conservatories, together with all things necessary for the study of agriculture in all its branches, and for mechanical training, and the studies and exercises directed to the cultivation and enlargement of the mind; Its object, to qualify students for personal success and direct usefulness in life; Its purpose, to promote the public welfare by exercising an influence in behalf of humanity and civilization, teaching the blessings of liberty regulated by law, and inculcating love and reverence for the great principles of government as derived from the inalienable rights of man to life, liberty, and the pursuit of happiness."

Name of the University

"Since the idea of establishing an institution of this kind for the benefit of mankind came directly and largely from our son and only child,

Leland, and in the belief that had he been spared to advise as to the disposition of our estate, he would have desired the devotion of a large portion thereof to this purpose, we will that for all time to come the institution hereby founded shall bear his name, and shall be known as The Leland Stanford Junior University."

Management and Control of the University

The general management and control of the institution is vested in a Board of Trustees originally numbering twenty-four, and chosen for life. By the Amending Act of May 31, 1899, the number of trustees is reduced to fifteen, with future elections for a term of ten years. The Board of Trustees fills all vacancies.

Powers and Duties of the Trustees

"The Trustees shall have power and it shall be their duty:

"To appoint a President of the University, who shall not be one of their number, and to remove him at will.

"To fix the salaries of the President, Professors, and Teachers, and to fix them at such rates as will secure to the University the services of men of the very highest attainments.

"To establish and maintain at such University an educational system which will, if followed, fit the graduate for some useful pursuit, and to this end to cause the pupils, as early as may be, to declare the particular calling which in life they may desire to pursue. . . .

"To prohibit sectarian instruction, but to have taught in the University the immortality of the soul, the existence of an all-wise and benevolent Creator, and that obedience to His laws is the highest duty of man.

"To have taught in the University the right and advantages of association and coöperation.

"To afford equal facilities and give equal advantages in the University to both sexes.

"The Board of Trustees shall annually report all their proceedings to the person who for the time being shall fill the office of Governor of the State of California, and shall accompany such report with a full account of their financial operation for the preceding year, and with a statement of the financial affairs of the institution."

Powers and Duties of the President

"It shall be the duty of the Trustees to give to the President of the University the following powers:

"To prescribe the duties of the professors and teachers; to remove

professors and teachers at will; to prescribe and enforce the course of study and the mode and manner of teaching; such other powers as will enable him to control the educational part of the University to such an extent that he may justly be held responsible for the course of study therein and for the good conduct and capacity of the professors and teachers."

Amendments to the Founding Grant

A clause in the Founding Grant reserves to the grantors the right to alter, amend, or modify the terms and conditions of the grant in important particulars. Under this provision amendments were made by Mrs. Stanford June 1, 1897; May 31, 1899; March 28, 1902; October 3, 1902; June 1, 1903. These amendments were concerned mainly with matters of detail, but provided also "that the number of women attending the University as students shall at no time ever exceed five hundred."

An Amendment to the Constitution of the State of California, adopted November 6, 1900, "permitted, approved, and confirmed all the trusts, estates, terms, and conditions" of the Founding Grant and of all the deeds, conveyances, and other instruments made and delivered before that date, and authorized the Legislature, under certain conditions, to exempt the property of the University from taxation. Article 13 of the State Constitution, as amended November 3, 1914, exempts from taxation the buildings, grounds (not exceeding one hundred acres), equipment, securities, and income, used exclusively for educational purposes, of any educational institution of collegiate grade not conducted for profit.

The University Faculty

"The Trustees shall constitute the President and professors the faculty of the University, and shall prescribe their powers and duties as such."

Under the Articles of Organization, adopted by the Board of Trustees March 31, 1904, the power and authority of the University Faculty is vested in the Academic Council, consisting of the President of the University, the professors and associate professors, the librarian, the registrar, the academic secretary, such assistant professors as have been upon the roll of the faculty for three years, whether as assistant professors or instructors, and such other officers of the University or members of the teaching staff as the Academic Council may, with the assent of the Board of Trustees, determine.

All general University regulations, statutes, and rules as to matters within the province of the faculty, must be initiated in and passed by the Academic Council. The Academic Council has general power and responsibility for the internal administration of the University, subject

to express provisions contained in the Articles of Organization respecting the methods of exercising such powers through the President of the University, the Advisory Board, the Standing Committees, and the Department Faculties.

The Advisory Board consists of nine members of the rank of professor, one from each of the five department groups, and four chosen without reference to groups. All executive acts of general importance, such as recommendations for appointments, promotions, and dismissals, for the creation of new departments or chairs, etc., must be submitted by the President to the Advisory Board. The Advisory Board is also privileged to make such recommendations to the President, regarding policy, as it may decide by vote to be expedient, but no recommendations for appointments, promotions, or dismissals may originate with the Advisory Board.

The Executive Committee of the Academic Council consists of the President, vice-president, registrar, academic secretary, and two members from each department group elected by the Academic Council. The Executive Committee appoints the Standing Academic Committees of the Council, with the exception of the Graduate Study Committee, which is elected by the Council.

The Standing Administrative Committees of the Council are appointed by the President.

The Department Faculties consist of the professors, associate professors, assistant professors, and instructors in the several departments, but only members of the Academic Council have the right to vote. A Department Faculty has direction of the work of instruction in the department and of the internal administration of the department, subject only to such control as is vested in the Board of Trustees, the President of the University, and the Academic Council. The executive head of the Department Faculty is designated annually by the President with the approval of the Advisory Board and of the Board of Trustees.

Departments

The work of the University embraces the following departments, divided into groups for the purpose of elections to the Advisory Board and Executive Committee, as indicated:

(I) Classical Literature, English, Germanic Languages, Romanic Languages; (II) Anatomy, Bacteriology and Experimental Pathology, Botany, Medicine, Physiology, Zoology; (III) Chemistry, Geology, Mathematics, Physics, Psychology; (IV) Economics, Education, History, Law, Philosophy, Political Science; (V) Applied Mathematics,

Civil Engineering, Electrical Engineering, Mechanical Engineering, Mining and Metallurgy.

The Hopkins Marine Station, located at Pacific Grove, on the Bay of Monterey, is a branch of the biological work of the University.

The Food Research Institute was organized in 1921 under grant from the Carnegie Corporation for the purpose of studying the production, distribution, and consumption of food. The Board of Directors consists of Dr. Carl Lucas Alsberg, Dr. Joseph Stancliffe Davis, and Dr. Alonzo Englebert Taylor. The advisory committee comprises Mr. Herbert Hoover, Dr. John C. Merriam, Mr. Julius Barnes, Mr. A. R. Howard, Dr. William M. Jardine, Mr. George C. Roeding, Dean Sarah L. Arnold, the President of the Carnegie Corporation, and the President of Stanford University.

The University Year

The University year begins the first of October and is continuous throughout four quarters of approximately eleven and a half weeks each. Any three quarters constitute an academic year. The summer quarter differs from other quarters only as the courses of study in the various departments may be contracted, or expanded, or specialized to meet the needs of a particular constituency; or, as in Physiology and Zoology, where the entire summer program is transferred to the Hopkins Marine Station at Pacific Grove. The emphasis of the summer quarter is placed on advanced and graduate work.

Location

The seat of the University, except for the advanced and clinical work in Medicine, is at Stanford University, in the Santa Clara Valley, thirty miles southeast of San Francisco, on the Coast Division of the Southern Pacific Railway. The campus contains about fifteen hundred acres, and is part of the University Trust of over seven thousand acres, partly level and partly rising into the foothills of the Santa Cruz Range. The Bay of San Francisco is about three miles east of the University grounds. Across the bay the Mount Diablo Range rises to a height of over four thousand feet, the Lick Observatory crowning Mount Hamilton, the highest of the range. The Santa Clara Valley is one of the most attractive portions of the State in fertility, in natural beauty, and in the excellence of its climate. In winter the mercury rarely falls below 30 degrees, with an average midday temperature of about 55 degrees. In summer the midday temperature ranges between 60 degrees and 80 degrees, with occasional higher and lower numbers, the average being about 70 degrees; the nights are cool, the usual range being from

50 degrees to 58 degrees. The rainfall, normally about eighteen inches, is chiefly confined to the months from December to April, inclusive.

Buildings

The architectural design of Stanford University, with the detailed plan of the inner quadrangle group, Encina Hall, and the first three engineering buildings, was the work of Mr. Charles Allerton Coolidge, of the firm of Shepley, Rutan, and Coolidge, Boston, Massachusetts. Later architects have followed the original plan, with modifications, but preserving its distinctive features.

The central group of buildings, constituting two quadrangles, the one surrounding the other, is an adaptation of the Mission Architecture, and reproduces on an imposing scale the open arches, long colonnades, and red-tile roofing of the old Spanish Missions of California. The Inner Quadrangle consists of twelve one-story buildings and the Memorial Church, connected by a continuous open arcade, and surrounding a court 586 feet long by 246 feet wide, or three and a quarter acres. The buildings are buff sandstone, somewhat varied in color, the stonework of broken ashlar, with rough rock-face, and the roofs covered with red tile.

The fourteen buildings of the Outer Quadrangle are constructed of the same material and in the same general style as the Inner Quadrangle, with open arcades on the outside. The extreme length of the Outer Quadrangle is 894 feet.

The Leland Stanford Junior Museum is situated a quarter of a mile from the Quadrangles, on the west side of the Palo Alto Avenue.

The Chemistry Building, located between the Quadrangles and the Museum, consists of two separate structures—the main building and the Physical Chemistry Laboratory.

South of the central quadrangles are located the workshops of the Engineering departments, experimental laboratories, etc.

Encina Hall, situated east of the Quadrangles, and Sequoia Hall, west of the Quadrangles, are dormitories for men; the former will accommodate four hundred and fifty students, the latter, one hundred. Roble Hall, situated southwest of the Quadrangles, near Lagunita, is the dormitory for women and will accommodate two hundred and twenty-six students. The extension of the Stanford Union, completed in 1922, has dormitory accommodations for one hundred men.

Encina Gymnasium, for men, is a brick building with a frontage of 330 feet, situated north of Encina Hall and near the athletic grounds. There are two main divisions separated by a small court. The drill hall is 120 by 65 feet, with hard maple floor. There are rooms for special

exercises, shower and locker rooms in each wing, ample offices, and space for storage and laundry. An outdoor swimming pool 100 by 40 feet, is available to all undergraduate men, and to graduate men upon payment of the prescribed gymnasium fees.

The Basketball Pavilion, completed in 1922, affords ample quarters for indoor games, with a gallery seating capacity of two thousand.

The Stadium, completed in 1921, is a bowl-shaped structure built on an earth embankment, and has a seating capacity of 60,000. The field includes a quarter-mile track and 220-yard straightaway.

Roble Gymnasium, for women, is a frame building equipped with apparatus for physical education. An outdoor swimming pool, 75 by 40 feet, is located near the gymnasium. In connection with the pool there are eighteen shower rooms, seventy-two dressing rooms, a laundry and sterilizing plant to care for the swimming suits, and a room for their drying.

The Thomas Welton Stanford Art Gallery, the first building of the second quadrangle group, has the same arched arcades as the original quadrangle, but the entrances, of which there are three, are higher and more elaborate in detail.

The Library Building is the central unit in the second quadrangle group. The ground floor provides a reading room for books set apart for collateral reading, a department of public documents, and administrative work rooms. On the main floor are the delivery hall, the reference and reading rooms, a browsing room, a periodical room, the card catalogue, and the administrative rooms; on the mezzanine and top floors, a large study room, and smaller rooms of varying sizes for seminary and special research work.

The grounds immediately about the University, constituting the campus proper, have been reserved in part for experimental and ornamental purposes, in part as residence sites for members of the faculty and others who may desire to live on the University campus.

The main buildings of the School of Medicine in San Francisco occupy four fifty-vara lots bounded by Clay, Sacramento, and Webster streets. They consist of the Clinical and Laboratory Building, including Lane Hall, and Lane Hospital, a modern building in brick and stone, with a capacity of one hundred and eighty beds, and the Stanford University Hospital, a concrete structure with a capacity of one hundred and thirty beds. The Lane Medical Library is situated on the corner of Sacramento and Webster streets, opposite the Clinical and Laboratory Building, and the Stanford School of Nursing on Clay street, opposite the Hospitals. The Library is a fire-proof structure of Colusa sand-

stone, three and a half stories high, with steel stacks accommodating 60,000 volumes.

The HOPKINS MARINE STATION is located on Almeja Point, Pacific Grove. A concrete building 40 feet by 80 feet, three stories in height, provides the necessary laboratories, aquarium, storerooms, library, photographic dark rooms, etc.

CLUB-HOUSES

The STANFORD UNION, a club-house for men, projected by Herbert C. Hoover of the class of 1895, and built by contributions from students, alumni, faculty, trustees, and friends of the University, is in charge of a Board of Trustees made up of three faculty members, three alumni, and three undergraduates, together with the Comptroller, the Dean of Men, and the President of the Associated Students. An additional building, consisting of dining halls, and dormitory accommodations for one hundred men, was completed in 1922.

The WOMEN'S CLUB-HOUSE provides a social center for the women of the University, with meeting rooms for various University organizations.

The two Union buildings and the Women's Club-House are connected by means of cloistered arcades surrounding an attractive court half an acre in extent and diversified by trees, grass, and a variety of flowering shrubs and plants.

ADMISSION TO THE UNIVERSITY

CANDIDATES must be at least sixteen years of age. They must present satisfactory recommendations as to personal character and must offer approved credentials as indicated below. Application forms for candidates from other colleges and universities, and recommendation blanks for candidates from preparatory schools, may be obtained on application to the Registrar. For matriculation for a particular quarter it is important that applications and complete credentials be presented on or before the dates named below.

Minimum Requirements for Admission

FIRST-YEAR STANDING

The minimum requirements for first-year undergraduate standing are measured in terms of high school preparation, and imply the completion of a regular four years' high school course, or its equivalent, amounting to *fifteen* units (including at least two units in English). These requirements may be fulfilled without examination, or on examination, as provided below. But since the University holds no entrance examinations and does not admit students with entrance deficiencies, candidates are advised, in general, to remain in the preparatory school until the full requirements have been met.

Without examination.—The minimum requirements for first-year undergraduate standing are fulfilled by candidates who have been duly graduated from approved preparatory schools with recommending (certificate) grades in subjects aggregating fifteen units (including at least two units in English), provided they are recommended also on the basis of character and seriousness of purpose. In schools which do not distinguish between a passing and a recommending (certificate) standard no subject will be credited unless the grade be at least five per cent higher than the lowest passing grade. (The first part of a continued subject, even if below the recommending standard, may be credited provided the last part is of recommending grade and the average of the two parts is of recommending grade. Acceptance of credentials may also be made to depend upon the record of the last two years, provided all the units of the last two years are of recommending grade, with an average of from five to ten per cent higher than the recommending grade, and provided that not more than three of the units in the first two years are below recommending grade.)

Holders of New York Regents' Diplomas granted *with credit,* and candidates from foreign countries who present credentials equivalent to those named and whose command of written and spoken English shall be deemed adequate for purposes of college study, may also be placed in this category.

On examination.—The minimum requirements for first-year undergraduate standing are fulfilled by candidates not graduates of approved preparatory schools

who have passed the examinations of the College Entrance Examination Board in subjects (including English) aggregating fifteen units. Partial fulfillment of requirements without examination (that is, graduation and recommendation on grounds of fitness, but with less than fifteen units of recommending grade) may be supplemented by examination, through the College Entrance Examination Board, in the subjects necessary to make up the required fifteen units. If recommended on grounds of fitness and after the completion of a full preparatory course, such candidates may take the comprehensive instead of the ordinary examinations of the Board (see p. 77).

ADVANCED STANDING

The minimum requirements for advanced standing are fulfilled by candidates whose previous record has been thoroughly satisfactory and who present credentials covering first-year requirements and the completion of one or more quarters of college work.

GRADUATE STANDING

The minimum requirements for graduate standing are fulfilled by graduates of colleges and universities of recognized standing whose credentials evidence ability and promise, and who expect to become candidates for advanced degrees, or for the high-school teacher's certificate, or who purpose to pursue regular advanced, professional, or research courses.

Admission of Men

There is no restriction upon the number of matriculants in graduate standing, nor in advanced standing where credentials cover full entrance requirements and 80 or more units of college work. Approved candidates in this group are assured of admission at the beginning of any quarter.

The number of matriculants in first-year undergraduate standing, and in advanced standing with less than 80 units of college work, is limited to 450 for the autumn quarter and 50 each for the two succeeding quarters. For the present no limit (below 450) is placed upon summer matriculants; but matriculation for the summer quarter does not necessarily insure registration for succeeding quarters, and if more than 50 summer matriculants re-register for the autumn quarter the number allotted to the autumn quarter will be correspondingly reduced.

The selection of candidates within the limited group will be made immediately after August 1st, December 20th, March 1st, and June 1st, respectively, for the next succeeding quarter. If the number of candidates fulfilling minimum requirements does not exceed the permitted number of matriculants all such candidates will be placed on the eligible list; if unfilled places remain, other candidates will be added to the list from time to time as approved credentials are received and as the Committee may determine. For such unfilled places (after the dates named)

applications may also be considered from men of considerable maturity, twenty-one years of age or older, who do not fulfill the minimum requirements for undergraduate standing, but whose incomplete preparation has been supplemented by practical training and experience of distinct educative value. Such candidates if admitted are special students and not candidates for a degree except as noted on page 109.

In case the number of candidates fulfilling minimum requirements exceeds the permitted number of matriculants, a preferred list will be made up immediately after the dates named, which will include (1) candidates who have passed the comprehensive examinations of the College Entrance Examination Board with an average grade of 75 in the four subjects (see p. 77); (2) sons of alumni of the University; (3) persons awarded regional scholarships prior to the dates named; (4) other candidates, sufficient to make up approximately the permitted number, selected on the basis of superior fitness, taking into account exceptional qualifications of any kind, including scholarship, force of character, qualities of leadership, influence exerted among schoolmates and associates, physical vigor, and the like.

Admission of Women

The Founding Grant of the University, as amended May 31, 1899, directs "that the number of women attending the University as students shall at no time ever exceed five hundred."

The same scholarship standards and requirements apply as in the case of men, but with special regulations regarding the selection of candidates, as provided below.

Under the 500-limit the number of places open to new women students for the October matriculation is approximately 140; 35 of these are provisionally assigned to approved candidates for graduate standing; 105 to approved candidates for undergraduate standing. Proportional assignments will be made for the winter and spring quarters. Under the 500-limit it is at present possible to receive less than one-fourth of the number fulfilling the minimum requirements. Selection will be made as follows:

The credentials of all candidates for undergraduate standing who have fulfilled the minimum requirements will be canvassed immediately after July 20th, November 15th, March 1st, and June 1st, respectively, for the next succeeding quarter, and a preferred list will be made up which will include (1) candidates who have passed the comprehensive examinations of the College Entrance Examination Board with an average grade of 75 in the four subjects (see p. 77); (2) daughters of alumni of the University and of members of the academic staff; (3) other candidates sufficient to make up approximately the permitted number, selected on the basis of superior fitness, taking into account exceptional qualifications of any kind, including scholarship, force of character, qualities of leadership, influence exerted among schoolmates and associates, physical vigor, and the like.

The credentials of candidates for graduate standing will be canvassed immediately after September 1st, December 20th, March 1st, and June 1st, respectively. Selection, up to the assigned number, will be made on the basis of superior fitness.

Approximately thirty-five places assigned to new undergraduate women for the

October matriculation will be filled on the basis of priority of application under the regulations in force before February 21, 1921, and until the applications received by that date are exhausted. No applications received later than February 21, 1921, will be considered for this list. Proportional assignments, on the basis of priority of application, will be made for the winter and spring quarters.

Women once admitted to the University will be allowed to continue without further application, so long as scholarship and conduct are satisfactory, and provided they present themselves for registration at the beginning of each quarter on the regularly appointed day; (but special restrictions apply to registration for the summer quarter, and to summer matriculants desiring to re-register for succeeding quarters). Places will not be held for women students after the regular registration day, except by permission of the Committee on Registration granted in advance.

The regular lists for the summer quarter will be made up immediately after June 1st, but it is not expected that the number of women in attendance will reach the 500 limit, and all candidates who fulfill the minimum requirements are, for the present, assured of admission if present on the regular Registration Day. Matriculation for the summer quarter, however, does not insure registration for any succeeding quarter. Summer matriculants will be considered in the same category as other applicants, and will receive only the advantage which inheres in early application or superior credentials.

Entrance Units

An Entrance Unit represents a year's study in any subject in a secondary school, constituting approximately one quarter of a full year's work. In assigning credit values two laboratory, drawing, or practice periods, not requiring additional study or preparation, are regarded as the equivalent of one recitation period. The length of the school year is assumed to be from thirty-six to forty weeks.

Approved Preparatory Schools

Approved Preparatory Schools are schools maintaining full four-years courses of high school work and accredited (1) by the New England College Entrance Certificate Board, by The North Central Association of Colleges and Secondary Schools, by the Association of Colleges and Secondary Schools of the Southern States, by colleges and universities of recognized standing, or (2) upon inspection undertaken or authorized by the University.

The University records of first-year students will be considered as additional evidence of the standing of preparatory schools and of their good faith and success in meeting the requirements of the University, and such evidence will be made use of in determining as to the continuance of accrediting relations.

Entrance Examinations

The entrance examinations of the College Entrance Examination Board are held in June each year (in California, at Stanford, Berkeley, Los Angeles, and other places).

The application for examination must be addressed to the College Entrance Examination Board, 431 West 117th Street, New York, N. Y. It must be made upon a blank form to be obtained from the Secretary of the Board upon request.

If the application is received sufficiently early the examination fee will be $9 for candidates examined in the United States and Canada, and $20 for candidates examined outside of the United States and Canada. The fee, which must accompany the application, should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

The applications and fees of candidates who wish to be examined outside of the United States and Canada must reach the Secretary of the Board at least six weeks in advance of the first day of the examinations (that is, for 1922, on or before May 8, 1922).

The applications and fees of candidates who wish to be examined in the United States at points west of the Mississippi River, or in Canada, must be received at least four weeks in advance of the first day of the examinations (that is, for 1922, on or before May 22, 1922).

The applications and fees of candidates who wish to be examined in the United States at points east of or on the Mississippi River must be received at least three weeks in advance of the first day of the examinations (that is, for 1922, on or before May 29, 1922).

When the candidate has failed to obtain the required blank form of application for examination, the usual examination fee will be accepted if the fee arrive not later than the specified date accompanied by a memorandum containing the name and address of the candidate, the exact examination center selected, and a list of all the subjects in which he may have occasion to take the Board's examinations.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidates concerned, but only upon the payment of $9 in addition to the usual fee.

A list of the places at which examinations are to be held by the Board is published about March 1st of each year. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1st.

In these examinations the University has designated 60 as the lowest passing grade.

The examination questions set by the Board are published in yearly volumes by Ginn & Company, Boston.

A definition of Requirements in the various subjects in which examinations are held is given in Document No. 101, issued by the Board. (Price, 15 cents; address Secretary, College Entrance Examination Board, 431 West 117th Street, New York, N. Y.)

The Comprehensive Examinations

Applicants who present evidence that they have satisfactorily completed a full preparatory course (amounting to fifteen entrance units) may be

given permission to take the comprehensive examinations, in place of the ordinary examinations covering fifteen entrance units.

The four subjects for the comprehensive examinations are to be determined as follows:

(1) English (three units);

(2) A foreign language, selected by the candidate (two, three, or four units);

(3) Either Mathematics, or Chemistry, or Physics, selected by the candidate (one, two, three, four, or four and a half units);

(4) A fourth subject, selected by the candidate, from the subjects in which examinations are held.

These four examinations must be taken at one time. At least two examinations must cover more than two entrance units each. In each subject selected the examination must cover all the units offered by the candidate in fulfillment of the minimum requirements for admission.

Entrance Subjects

The standard of preparation is the four-years high school course. The proper coördination of high school subjects for the individual pupil is regarded as primarily a problem for the secondary school; the University is prepared to recognize for entrance credit any subject having an established place in the secondary school curriculum, in which adequate instruction is given and which is pursued to satisfactory results.

No prescription of subjects, other than English, is made. Candidates desiring to study mathematics must obviously offer such elementary mathematics as is not taught in the University, and engineering students are expected to offer also trigonometry. Candidates desiring to study Latin should offer at least two entrance units in that subject. Elementary language courses in French and Spanish given in the University require the payment of special fees.

The requirements of the Lower Division (see page 107) may be anticipated to some extent by the proper choice of subjects presented for entrance credit. Generally it will be found advantageous, in the sense that it will allow greater freedom in the choice of subjects in the University, to include among the entrance credits presented three units in one foreign language or two units in each of two foreign languages, one unit in a biological science, one unit in physics or chemistry, and one unit in history. This is especially to be recommended when an engineering course has been definitely chosen, in which case trigonometry should also be included.

Most of the science departments in the University, including the Medical School, require a reading knowledge of French or German for graduation, and German is required for advanced degrees in the Chemistry Department. It is advantageous to begin these languages before matriculation.

All Lower Division students (except students coming from other institutions with satisfactory credit in a college composition course) will be required to satisfy the University standard in English Composition. This may be done by passing a special Matriculation Test given during matriculation week. The examination will test the candidate's practical knowledge of spelling, punctuation, and sentence structure, and his ability to think consecutively on a simple subject. The subjects which are set at the time of the examination will be drawn for the most part from the candidate's own experiences.

A student who does not pass will be required to register in English A at once (unless, by reason of numbers, such registration is postponed to a later quarter), and remain in the course until his work is of passing grade.

Definition of High School Subjects

The definition of high school subjects given by the College Entrance Examination Board (Document No. 101 issued by the Board) will serve as a standard, and also, for California schools, the outline prepared by the University of California. The following suggestions and explanations will indicate the attitude of the University in judging entrance credentials, but no attempt is made to enumerate all the subjects which may be properly included in the high school curriculum.

1. English.

The primary aim of instruction in English Composition in the secondary schools is clearness. Based upon grammatical correctness, which is the peculiar goal of elementary English Composition, this is the quality by which the Stanford matriculation test is rated. To attain these aims there should be a definite coöperation of the entire staff of the school.

The work in English Composition should be given at least two recitations a week throughout the entire high school course. The greater part of the student's time outside of class should be devoted to practice in writing, but it is recommended that some attention be also paid to instruction in the fundamental principles of formal rhetoric.

The work in English Literature should be given an average of at least three recitations a week throughout the four years of the preparatory course. It should be so conducted as to give the student not only an appreciative understanding of the books selected either for general or for more intensive study, but also a knowledge of their place in the history of English Literature, together with an ability to read aloud intelligently both prose and verse.

In the History of English Literature preparation should consist in a brief outline with a view to making clear the character and the tendencies of the more important literary epochs and associating the chief books and authors in their proper periods.

2. Mathematics.

The work in Mathematics is usually distributed as indicated by the following unit values: algebra (1 to 2), plane geometry (1), solid geometry (½), trigo-

nometry (½). Additional work may be offered in algebra and plane analytical geometry. The solution of numerous original problems and exercises is assumed throughout the course.

3. The Sciences.

In Physics, Chemistry, Physiology, Botany, Zoology, Hygiene, and General Science a full year's work in each is expected, comprising, preferably, two recitation periods and three double laboratory periods per week. Accurate notes of the laboratory work should be kept. Any two of the biological sciences (Physiology, Botany, Zoology) may be combined into a continuous year's course. Astronomy may be offered as a half-unit course.

Students who receive entrance credit in Chemistry, and who wish to continue the subject in the University, will be admitted at once to course *b* and will be required to begin course 1.

In Physiology the text-book work should be accompanied by experiment, dissection of animals and organs, and a certain amount of study of the tissues with the microscope.

In Botany the main thing is that the work shall be of a practical nature; the study mainly specimens and not books. A study of the growth and development of the forms selected is of the highest importance, and should be made a prominent feature in the work. If possible, the pupil should be allowed the use of a compound microscope; but when this is not practicable, microscopic demonstrations by the instructor are indispensable.

In Hygiene the work should include adequate instruction in personal hygiene, the hygiene of occupation, and the relation of the citizen to the State in matters of sanitation and public health. Three periods per week of physical training and three periods in experimental laboratory work in Hygiene, and two recitations per week on Public Health, or an equivalent amount of work distributed over a longer period, will cover the requirements for one unit of credit.

4. History and Allied Subjects.

History should be offered in full unit courses covering respectively the following divisions: (*a*) Ancient, (*b*) Mediaeval and Modern, (*c*) English, (*d*) American. A full unit course in European History, which includes both continental Europe and the history of England, will be accepted. Civics may be offered as a part of American History, or as an additional half-unit course. (A two-years' course covering the first three subjects (*a, b, c*) will be accepted.) Biblical History and Literature and Economics may each be offered as a half-unit or a unit course.

In the History subjects, in addition to the text-book preparation, the following exercises are recommended: Supplementary reading, including the use of original material where possible, notes and digests of reading; abstracts or analyses of specified chapters, both of the text-book and supplementary reading; outlines of subjects, gathering material from all available sources; map drawing from printed data or comparison of existing maps, showing movements of exploration, migration or conquest, territorial changes, or social phenomena. Such work should be regarded as a means rather than the end of historical study, and in every instance should be adapted in character and amount to the stage of advancement of the class and of the individual pupil. As the pupil progresses in his study, more advanced work may well be required in the form of historical composition and of note taking in the class from talks by the teacher or reports of fellow pupils.

5–6. Spanish and French.

The elementary study of the languages, covering two years of daily recitations,

should lay stress on the following points: (1) An accurate knowledge of the forms of the languages; (2) the elements of syntax; (3) the ability to turn easy English prose into French or Spanish; (4) the ability to translate ordinary French or Spanish into idiomatic English; (5) the ability to pronounce French and Spanish correctly.

(Students who have had one year of French in the high school and present one unit of credit for entrance into the University may take course A2. Those who have had one year of Spanish in the high school and present one unit of credit for entrance, may take course B2. Those who have had two years of French or Spanish in the high school, and present two units of credit for entrance, may take second-year work in the University.)

The intermediate requirements are intended to represent a third year of daily recitations. The specific demands are: (1) A thorough knowledge of modern French and Spanish syntax; (2) the ability to turn ordinary modern French and Spanish at sight into idiomatic English; (3) the ability to translate connected English prose of moderate difficulty into French or Spanish; (4) the ability to write French or Spanish from dictation; (5) some facility in speaking the languages.

(Students who have had three years of French in the high school, and present three units of credit for entrance into the University, will ordinarily take course A22. Courses A24 and A30 are also open to them. Students who have had three years of Spanish in the high school, and present three units of credit for entrance into the University, will ordinarily take course B22. Course B30 is also open to them.)

The advanced requirements will occupy a fourth year of daily recitations. At the end of this course the student should be able: (1) To read at sight any standard author not earlier than the seventeenth century; (2) to write in French or Spanish a short essay on some simple subject connected with the works read; (3) to translate correctly a passage of modern English prose; (4) to carry on a simple conversation in French or Spanish; (5) to follow a lecture in French or Spanish.

The reading in the elementary course should cover from four hundred to six hundred duodecimo pages; in the intermediate course a similar amount should be read of prose and verse, a portion to be in the dramatic form; and in the advanced course the same quantity of prose and verse should be selected from standard authors not earlier than the seventeenth century, and these should be read with reference to their literary value.

The practice of writing compositions consisting in reproductions or paraphrases of the matter read should be begun in the intermediate course and followed by short themes along similar lines in the advanced course.

7. German.

Elementary German represents the work of two high school years with daily recitations. It should give the following preparation: The ability to read understandingly easy German prose and verse at sight; an accurate knowledge of the most important elements of grammar, embracing especially inflections, word-order, and the essentials of syntax, as also the ability to appreciate the force of prefixes and suffixes; the ability to express in correct German simple ideas concerning familiar things and to recognize German words and simple sentences when spoken. Careful attention should be given to pronunciation and accentuation.

The amount of work to be accomplished in the first year is approximately what is contained in a beginner's book such as Zinnecker's Deutsch für Anfänger, with some additional reading. The reading of the second year should be for the most part graded modern German from 200 to 300 pages. German should be the language

of the classroom, instruction in conversation, composition, and grammar being based largely on the reading text.

Intermediate German represents a third year of daily recitations, designed to extend and strengthen the pupil's personal command of the language, and his knowledge of word formation and syntax. Here again the reading matter should be, in large measure, the center of the instruction, and some attention should be paid to literary appreciation.

Advanced German represents a fourth year of daily recitations. Besides rounding out the pupil's knowledge of grammar, and increasing his facility in speaking and writing, this course should make considerable addition to his passive vocabulary and develop his literary appreciation. It would be advisable to choose most of the reading from the works of recent or contemporary writers, but some work or works of Lessing, Goethe, and Schiller should be studied intensively, while others might be assigned for outside reading and report.

8. Latin.

The reading required in elementary and advanced Latin (4 units) without regard to the prescription of particular authors and works, is not less *in amount* than Caesar, Gallic War, I–IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Virgil, Aeneid, I–VI. An equivalent amount of reading from authors other than those specified above may be substituted. The following are suggested: Caesar, Civil War; Eutropius; Nepos; Terence, Phormio; Cicero, Letters; Sallust; Virgil, Bucolics and Georgics; Ovid, Metamorphoses.

Exercises in translation at sight should begin in school with the first lessons in which Latin sentences of any length occur, and should continue throughout the course with sufficient frequency to insure correct methods of work on the part of the student. From the outset particular attention should be given to developing the ability to take in the meaning of each word—and so, gradually, of the whole sentence—as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded and from the form and position of the word itself. The habit of reading in this way should be encouraged and cultivated as the best preparation for all the translating that the student has to do. No translation, however, should be a mechanical metaphrase. Nor should it be a mere loose paraphrase. The full meaning of the passage to be translated, gathered in the way described above, should finally be expressed in clear and natural English.

The school work in Latin should include much reading aloud, writing from dictation, and translation from the teachers' reading. Learning suitable passages by heart is also very useful, and should be practiced.

The work in composition should give the student a better understanding of the Latin he is reading at the time, if it is prose, and greater facility in reading. It is desirable, however, that there should be systematic and regular work in composition during the time in which poetry is read as well; for this work the prose authors already studied should be used as models.

9. Greek.

In Elementary Greek (2 units) the following requirements should be covered: Grammar, the inflections, and the essential points of syntax; Xenophon's Anabasis, Books I–IV, or an equivalent; prose composition. It is expected of every pupil that he be able to read Greek aloud without stumbling.

In Advanced Greek (1 unit): Homer, Iliad, Books I–III, or an equivalent; advanced prose composition. The pupil should have a good acquaintance with the

forms and syntax of Homer, and be able to scan any given passage exactly and to read it rhythmically. In the writing of Greek the pupil should have a year's training beyond that required in Elementary Greek.

10. Drawing and Applied Art.

In each of the drawing subjects (Freehand, Mechanical, and Architectural) a unit of credit represents daily double periods for a year or single periods for two years.

In Freehand Drawing approximately two-thirds of the time should be given to representation and one-third to decorative and constructive design. *Representation* should include: Object drawing, boxes, books, bowls, vegetables, machine parts, drawn in various positions with attention to perspective facts in line and also to light and shade; plant forms, seed pods, shells, insects, animals, and simple landscape, drawn in line, in light and shade, and in color; composition, exercises in arrangement and adaptation of pictorial subjects into good composition, using both rhythmic line arrangement and harmonious color. The style of drawing should be direct, facile and effective, adapted to the thing drawn, with refinement in its proper place and vigor in its proper place. The pupil should be equally familiar with the use of pencil and charcoal or brush. *Design* should include (1) Exercises in space filling, borders and all-over patterns with use of geometric and organic forms; (2) principles of constructive and decorative design applied to simple objects, as: in printing, a title-page or program; in textiles, a stencil or embroidery design for a curtain or table-scarf; in wood, working drawings for a chair, table, clock-case, book-rack, etc.; in metal, cabinet hardware and lighting fixtures, etc. Talks supplemented by photographs of the best paintings and architecture, and talks upon taste in home furnishing and appointments, with visits to worthy examples, should supplement the course with a view to developing an enlightened taste in art.

In Mechanical Drawing the pupil is expected to acquire neatness and accuracy in the use of drawing instruments. This course should include practice in line work, lettering, machine or architectural working drawings, and tracing. Recognition, commensurate with the length of course and the degree of proficiency attained in the use of instruments, will be given, however, to courses consisting of line work, lettering, and the construction of geometric figures.

11. Shopwork.

Two things are expected: First, a knowledge of the materials and tools used, and a thorough understanding of the principles involved in the operation performed; second, manual dexterity, as evidenced by neatness, accuracy, and dispatch in the execution of a given piece of work.

Woodworking (½ unit) demands the ability to recognize the common varieties of wood, and some knowledge of their physical properties, such as ease of working, strength, toughness, hardness, etc., is expected. The pupil should be familiar with the uses of the principal hand tools of carpentry and with care, be able to make the ordinary kinds of joints and splices, and be familiar with the operation of lathe, jig-, band-, and circular-saws, and planing machines.

Forge Work (½ unit) demands an elementary knowledge of the properties of wrought iron and steel, and of the proper heats at which to work them. The management of forge and fire and the nature and uses of all the ordinary blacksmithing tools should be known. The pupil should be able to execute all of the common forging processes, including the various forms of welds in iron and steel; he is also expected to understand hardening, tempering, and annealing.

Foundry Work (½ unit) demands a knowledge of the tools and processes used in the ordinary forms of green sand molding and core work. The pupil

should have had experience in the operation of the cupola and know how to charge and operate it. He should have a knowledge of the properties of cast iron, and experience in pouring cast iron as well as in molding.

Machine Shop Work (½ to 1 unit) demands a knowledge of the tools and processes used in the working of iron, steel, and brass. The pupil should be able to execute all forms of vise-work, such as chipping, filing, scraping, fitting, and finishing. He should be familiar, through experience in operation, with the simpler forms of machine tools, such as the lathe, drilling machine, planer, shaper, and milling machine.

12–15. Agriculture, Horticulture, Domestic Science, Commercial Subjects, Music.

The outline prepared by the University of California is suggested; also, in Music, the definition given by the College Entrance Examination Board.

FEES, EXPENSES, AND AID FUNDS

Tuition and Incidental Fees

THE Tuition Fee for undergraduates in all departments (except Medicine) is $75 per quarter. (For undergraduates matriculating before October, 1921, the Tuition Fee, except in Medicine, is $40 per quarter.)

The Incidental Fee for undergraduates (except in Medicine) is $20 per quarter. Students paying this fee have the privileges of the gymnasia, athletic grounds, Guild, and Stanford Union or Women's Clubhouse, with membership in the Associated Students, without further quarterly fees.

The Tuition Fee for regular graduate students, except in the departments of law and medicine, is $50 per quarter. The Tuition Fee for graduate students in Law is $65 per quarter (for students registering in Law before October 1, 1921, $50 per quarter). The Guild Fee for graduate students is $2 per quarter. Graduate students may have the privileges of the gymnasia and athletic grounds ($5), Stanford Union or Women's Clubhouse ($1), with membership in the Associated Students ($2), upon paying the quarterly fees.

The Tuition Fee for all students (graduate and undergraduate) in the School of Medicine is $85 per quarter; the Hospital Fee is $2 per quarter. Medical students desiring membership in the Stanford Union, Women's Clubhouse, or Associated Students, or the use of the gymnasia and athletic grounds, will pay the usual fees designated for these purposes. A deposit to cover breakage or loss of apparatus and materials may be required in any department, such deposits being returnable, less charge for breakage, loss, or wear and tear of apparatus. The total deposits for this purpose may vary from $10 to $20 per annum. (For graduate students registering in Medicine before October, 1921, the tuition fee is $50 per quarter and the incidental fee $13 per quarter (in San Francisco, $12). For undergraduates registering in Medicine before October, 1921, the tuition fee is $50 per quarter, the incidental fee $20 per quarter.)

Students who have paid the regular fees of the Medical School in full and wish to take additional work before graduation will pay for this additional work such fees as are decided upon in conference with the Dean and the Executive Head of the department in which such courses are taken.

The General Fee at the Hopkins Marine Station (covering all charges) is $75 per quarter for undergraduates and $50 for graduates. (For students matriculating before October, 1921, this fee will be $40.)

In addition to the above fees, students in laboratory courses pay for the materials which they use, and in some courses small syllabus and other fees may be charged.

The fees for either half of the summer quarter are one-half of the corresponding fees for the whole quarter.

Tuition and Incidental fees are ordinarily returnable, when duly claimed in writing within two months after the date of withdrawal from the University, as follows: two-thirds of the incidental fee and the whole of the tuition fee will be refunded when the student withdraws within two weeks after the date of registration; one-half of the incidental fee and two-thirds of the tuition fee when the student withdraws at a later time but within four weeks of the date of registration. Laboratory fees (except in Chemistry, where a different procedure is applicable) are likewise returnable when duly claimed in writing within two months after the date of withdrawal from the University, as follows: the whole amount will be refunded when the student withdraws within one week of the beginning of a quarter, and one-half the amount if the student withdraws before the middle of a quarter; but no fees will be refunded on account of withdrawal after the middle of a quarter, nor unless claimed in writing within two months after the date of withdrawal.

A Diploma Fee of $5 is charged all persons receiving degrees from the University.

Cost of Living

There are three dormitories for men (Encina Hall, Sequoia Hall, and the Stanford Union) and one for women (Roble Hall).

Undergraduate men, not living with parents or guardians, are required to room in Encina Hall, or Sequoia Hall, or in the Stanford Union, during their first three quarters in the University. Application for room assignments in the Halls should be made to the Dean of Men several weeks in advance of the opening of the quarter, and should be accompanied by a deposit fee of $5. Men students not rooming in the Halls may live only in places approved by the University (consult the Dean of Men). Rooms in the Halls cost from $16.50 to $27 per quarter, payable at the beginning of each quarter. Students rooming in the dormitories are expected to supply their own linen and bedding. Board may be obtained at the Stanford Union, Sequoia Hall, and in various clubs, the cost ranging from $30 to $40 per month.

Undergraduate women, not living with parents or guardians, are required to reside in Roble Hall for three quarters. Women students not residing in Roble Hall may live only in places approved by the University (consult the Dean of Women). Rooms in Roble Hall cost $30 per quarter and board $90 per quarter. Room rent is payable in

advance for the quarter; board in advance for the quarter or in two installments ($45 each). Students rooming in the Hall furnish couch covers, bed linen, blankets, towels, bureau scarfs, rugs, and curtains. White curtains are uniform for the Hall and must be purchased of the Matron. (Students in the summer quarter may rent curtains for seventy-five cents for the quarter; a few rugs are also available for rent to summer quarter students.) Applications for rooms in Roble Hall should be made to the Dean of Women and must be accompanied by a deposit of $5. Rooms are assigned in order of application, and early application is advisable.

In Palo Alto and College Terrace, at an average distance of a mile and a quarter from the University, rooms and board (for men) can be obtained in private houses, at from $30 to $40 per month. There are usually coöperative clubs, in which the cost of board and room may be further reduced. Special commutation tickets are issued by the Southern Pacific Company, and students living in towns on the line of the railway, from San Francisco to San Jose, easily go to and from the University daily. There is also trolley connection with San Jose, Los Gatos, and intermediate towns.

The cost of living for students of Medicine in San Francisco is about the same as at Stanford University. There are numerous rooming and boarding houses near the medical buildings.

FIXED EXPENSES PER QUARTER

The following is an estimate of the expenses *per quarter,* for undergraduate men, *for the items named:*

	Medium	*High*
Tuition and Incidental Fees	$ 95.00	$ 95.00
Books, Syllabus Fees, etc.	15.00	30.00
Board	90.00	120.00
Room	18.00	45.00
Incidentals (other than clothing and railway fares)	35.00	50.00
Laundry and clothing	35.00	100.00
Total for the quarter	$288.00	$440.00

(For undergraduates matriculating before October, 1921, tuition and incidental fees are from $60 to $70 per quarter.) Laboratory fees are additional. The cost of board is variable and the estimate given for men is conservative; a lower cost is possible in coöperative clubs. For women residing in Roble Hall room and board amount to $120 for the quarter.

Self-Support of Students

A considerable number of students find it possible to earn the whole or part of their expenses while attending the University. Success depends upon the student himself. The University, through the Appointment

Secretary's office, and in other ways, is able to help the student both in finding work and in making plans. It can not, however, assume the responsibility of supplying work for all applicants. The student who combines initiative with industry and reliability, and who is willing to adapt himself to circumstances, is the one who succeeds in this as in other undertakings. As a result of experience it is believed that no properly prepared student who is possessed of good health and who has no dependents need hesitate to undertake a University course because of lack of means; if he is sufficiently in earnest in his desire to "work his way through" opportunities will not be lacking.

Students who are contemplating earning their own expenses at the University should not register for a heavy course nor attempt to engage in more than one student activity, particularly during their first quarter at the University (self-supporting students whose scholarship is high are given preference in awarding scholarships). While working one's way is an education in itself, there are many valuable features of college life that must be foregone if one is earning a living. Students who have the necessary means will do well to devote any energy not needed in their studies to various extra-curricular activities rather than to earning their expenses.

The student is not advised to enter the University without a reserve fund, to provide for immediate needs or unexpected contingencies. This fund ought ordinarily to amount to at least $200; it is preferable for new students to have a larger sum. The student needs time to get acquainted, to become adjusted to University methods and requirements, to systematize his University work, to learn about the various opportunities for earning money, and to discover how much time he can afford to devote to self-support, keeping in good health and still making study his main object. In general, the student should not undertake to earn a larger proportion of his expenses than is absolutely necessary; his working time is too valuable for this and should be devoted to his studies to the largest extent possible. It is recommended that no new student plan to devote more than four hours a day to earning his expenses.

The most ready-to-hand means of earning one's board at the University, whether for men or women, is by waiting on table. From three to four hours per day will cover the time required, which comes when it is least missed. Such chances are to be found in the dormitories, in cafés and boarding houses, and in public and private eating clubs. Other forms of work, for the relatively unskilled, are gardening, house work, care of children, janitor service, special jobs in connection with gymnasium and athletic activities, manual labor in connection with laboratory sections, agencies for laundries and other businesses, etc. Positions requiring

more or less preliminary training have to do with plain cooking, clerking, bookkeeping, stenography and typewriting, music for dances, newspaper reporting, printing, tutoring, the management of student enterprises, etc. For advanced students in the various departments there are opportunities to act as assistants in quiz sections, in the reading of examination papers, reports, etc. Laboratory assistants are usually students either in graduate or undergraduate standing, as are also some of the part-time assistants in the various administration offices. Other means of support are found in the scholarships and fellowships offered, and through the considerable loan funds now available. A limited number of opportunities during the short vacations, particularly at Christmas time, can be found in San Francisco and elsewhere, as special Post-Office clerks or salesmen in the larger stores.

New students who must begin earning as early as possible, will do well to be on hand a little in advance of the opening of the University and to come equipped with bicycles and working clothes. They should promptly enroll with the Appointment Secretary, Room 170 in the Administration Building. Women should discuss their plans also with the Dean of Women.

Assistantships

Student-assistant positions in the various departments, held by either undergraduates or graduates, range in pay from $35 to $150 each per quarter, the average being about $75 per quarter. These do not include a considerable number of minor positions in laboratories or elsewhere where mere labor without skill or special knowledge is required, nor do they include those positions where the full time of the assistant is demanded.

Each department selects and recommends for appointment its own assistants. Requests for information as to pay and duties, and applications for appointment, should be addressed to the Executive Head of the department in which a position is sought.

Loan Funds

After the first quarter in the University, and in approved cases, students may defer payment of tuition fees by means of promissory notes. Applications should be made to the Dean of Men and the Dean of Women, respectively.

The following loan funds (with the exception of the Women's Student Loan Fund) are administered by the Committee on Scholarship. In general not more than one hundred dollars may be loaned to any one student, and provision is made for repayment, without interest, not later than one year after date of graduation or withdrawal from the Univer-

sity. Applications should be filed with the Academic Secretary of the University.

Horace Davis Loan Fund.—Mr. Horace Davis, charter member of the Board of Trustees, provided in his will a fund of $10,000, the interest of which is to be used as a loan fund for students. The amount at present available for loans is $1,250.

William Burton Barber Loan Fund.—Established in 1914 by Mrs. Anna M. Barber, in memory of her son, William Burton Barber, '02, "to provide for needy and worthy students." This fund, increased by over $5,000 from the estate of Mrs. Jeannette Taylor, is available for men and women of the senior class who have been registered in the University for at least one quarter. The amount at present available is $6,569.80.

Stanford Alumni Association Graduate Loan Fund.—Loans are restricted to candidates for advanced degrees, including the A. M., J. D., M. D., and Ph. D. degrees, preference being given to candidates for the Ph. D. degree. In making loans emphasis shall be placed upon character, scholarship, and intellectual promise, in addition to personal need. $245.

Dean of Men's Loan Fund.—An emergency loan fund, administered by the Dean of Men upon approval of the President.

Stanford Alumni Association Undergraduate Loan Fund.—"For worthy undergraduates." $500.

Harker Alumnae Association Loan Fund.—Established in 1917 by the Alumnae Association of Miss Harker's School, a large number of whose graduates have been Stanford students. There are no restrictions except that if a graduate of Miss Harker's School applies she shall be given preference, other qualifications being equal. $225.

Class of 1906 Loan Fund.—No restrictions except such as may be imposed by the Committee on Scholarship. $100.

Associated Students Undergraduate Loan Fund.—For the benefit of worthy undergraduates who are members of the Associated Students of Stanford University. $250.

Women's Student Loan Fund.—The Women's Student Loan Fund was organized by the Women's Conference by private subscription, and is increased yearly by small sums earned by a committee of the Conference. It is available on the following conditions, for small emergency loans: (1) No interest to be charged until one year after the student leaves the University; interest then begins at six per cent, and is payable annually; (2) all loans to be paid within five years after the student leaves the University. Application for loans from this fund should be made to the Dean of Women.

Dr. Robert Patek Memorial Loan Fund.—Established in 1921 by Mrs. Sadie Dernham Patek (Stanford, '11) in memory of her husband, Dr. Robert Patek. This fund, principal and interest, is to be loaned to medical students to assist them in completing their medical course. A student who has once received a loan from the Fund is entitled to continue to get additional loans until his graduation. The loans granted to students are to bear no interest for six years, and then to have an interest rate of six per cent until paid. Applications for loans are to be made through the President's Office.

The Dickey Scholarships

In 1914 the Trustees of the University received from the estate of the late W. J. Dickey, of Fresno, the sum of ten thousand dollars for the establishment of the

W. J. Dickey Scholarship Fund "to aid young men from Fresno County, preferably from Fresno City, to make their way through Stanford University." The Trustees of the Dickey Estate are Mr. E. A. Waldron, Cashier of the First National Bank of Fresno, and Mr. M. B. Harris, of the Fresno bar. The selection and appointment of the W. J. Dickey scholars is made by the President upon the recommendation of the Committee on Scholarship, subject to the provision that the trustees under the will of Mr. Dickey shall be consulted and their advice taken before any appointment is made. No one may be appointed to a Dickey Scholarship unless he shall have been a resident of the County of Fresno, and preferably of the City of Fresno, for at least two years prior to his appointment; and no scholarship may be held or shared by one person for more than four years.

No one may be appointed to a W. J. Dickey Scholarship unless he has fulfilled all the requirements for regular standing in the University.

Other things being equal, preference shall be given, in making appointments, to first-year students.

Appointments are made for the college year, but may be terminated earlier at the discretion of the committee. Appointments may be renewed at the discretion of the committee, for a total period not to exceed four years.

In making its recommendation the Faculty Committee shall keep in mind that the donor of the W. J. Dickey Scholarship Fund wished the benefits therefrom to be derived by persons who are financially unable to make their way through college. In addition to this fact, character, scholarship, and seriousness of purpose shall be taken into consideration in determining appointments.

The W. J. Dickey Scholarship Fund provides for two scholarships of $300 each, payable in nine monthly installments.

Application for appointment to the W. J. Dickey Scholarship, with pertinent evidence and testimonials, is to be made to the President of the University, who will refer it to the appropriate committee. Candidates shall be recommended by the committee to the President, who will submit the names to the trustees of the Dickey estate, and upon their approval appointments shall be made by the President of the University.

Memorial Scholarship

The trust establishing the Leland Stanford Junior Memorial Scholarship provides a fund of $6,000, the income of which shall be used "to pay the living expenses, cost of books, fees, and other necessary expenses of the holder." Under the present arrangement the Memorial scholar receives in cash $25 per month or a total of $225 for the academic year. In addition, the trust sets aside a room in Encina Hall for the use of the holder of the scholarship, and for which no charge is made.

The Brodie G. Higley ('99) Scholarship

In 1915 Mr. Brodie G. Higley, of the class of 1899, established, through the Alumni Association, an annual scholarship of one hundred and fifty dollars, "open to either a man or woman undergraduate student who is in good and regular standing in the University, to whom the money will be a real assistance." In 1919 Mr. Higley deposited with the Board of Trustees securities to the amount of $3,000 to perpetuate this scholarship.

The selection and appointment of the Brodie G. Higley Scholar will be made by the President upon the recommendation of the Faculty Committee on Scholarship. Appointment will be made for the college year, but may be terminated earlier on recommendation of the Committee and at the discretion of the President.

Applicants for the scholarship must have been registered in the University for

at least three quarters prior to the time of application. In making appointments it will be the purpose of the University to emphasize character, scholarship, and intellectual promise, as well as personal need. The scholarship will ordinarily be payable in six equal installments, beginning October 1st. Applications should be filed with the Academic Secretary of the University.

The Mrs. McDowell Roble Club Scholarship

The sum of one hundred and fifty dollars per year has been presented to the University by Mrs. John E. McDowell for the purpose of establishing a scholarship to be granted to a member of Roble Club who has been a student in the University and a resident of Roble Hall for two years, the award being made at the close of the junior year.

The George E. Crothers Law School Scholarship

In 1917 Judge George E. Crothers, of the class of 1895, established a Law School Scholarship of the value of two hundred dollars annually.

The Bertha Hyde Braly Scholarship

In 1916 Mrs. J. M. Braly, of Fresno, established an annual scholarship of $250, in memory of her daughter, Bertha Hyde Braly, '97. The amount of the scholarship was increased to $300 by Miss Elizabeth M. Braly in 1921. The scholarship is available for a woman student who is a resident of either Fresno County or Santa Clara County.

The Wilmer J. Gross ('16) Scholarship

In 1919 Mrs. Wilmer J. Gross (Dorothy Davy, '16) founded a scholarship of the value of $150 annually, in honor of her husband, Wilmer J. Gross, '16, who died in service in France; the scholarship to be open to all undergraduate men in the University who have been in residence at least one year. The appointment shall be based primarily on scholarship, but in addition good moral character and general excellence shall be considered.

The Dorothy Metz ('17) Scholarship

In 1920 Mrs. Lillian C. Metz established an annual scholarship, of the value of $200, in memory of her daughter, Dorothy Amanda Metz, '17, who died in service, the scholarship to be awarded "to a worthy and ambitious student of limited means."

The Gertrude Gardiner Scholarship

In 1920 Miss Gertrude Gardiner established a scholarship of the annual value of $200, to be known as the Gertrude Gardiner Scholarship, and to be awarded to a non-sorority woman who has been a student in the University for at least two quarters and who is a resident of Roble Hall.

The Ernest A. Love ('18) Scholarship

In 1920 Mr. and Mrs. Allan Love founded a scholarship, of the value of $150 annually, in honor of their son, Ernest A. Love, '18, who died in service in France; the scholarship to be open to worthy and needy undergraduate men, preference being given to students from Arizona.

The Marcelle Henriette Rouiller ('15) Scholarship

In 1920 Madame Jeanne R. Rouiller established a scholarship of the value of $160, in memory of her daughter, Marcelle Henriette Rouiller Calley, '15; the

scholarship to be awarded to a worthy and needy student for the payment of tuition fees.

Regional Scholarships

Regional Scholarships may be awarded to persons who meet the minimum requirements for admission to the University (fifteen acceptable high school units), who ranked in the upper fifth of their graduating class, counting all four years of the preparatory course, or only the last two, and who need this help in order to enter the University. Nominations for regional scholarships will be received from the organized alumni of the region.

Gray's Harbor, Washington.—Established in 1921 by the Stanford Alumni of Gray's Harbor and vicinity; $300.

San Mateo High School.—Established in 1921 by the Associated Students of the San Mateo Union High School; $300.

The John Maxson Stillman Scholarship in Chemistry

From the Stillman Testimonial Fund, presented to Professor John Maxson Stillman by graduates and former students in Chemistry, and others, on the occasion of his retirement from active service in the University, in May, 1917, there has been established the John Maxson Stillman Scholarship in Chemistry. The amount available is $150 per year, and the scholarship is open to undergraduate or graduate students in the Department of Chemistry upon nomination by the department faculty and approval of the President.

The William Irvin Weaver Scholarship

In 1919 Miss Eva Ray Weaver, '13, established a scholarship of the annual value of $150, in honor of her brother, William Irvin Weaver, '13, who died in service in France. The scholarship is to be known as the William Irvin Weaver Scholarship, and is to be awarded to a graduate or undergraduate student in the department of Chemistry, on the recommendation of the department faculty, subject to the approval of the President of the University.

The Hiram C. Fisk Scholarship

In 1920 Mr. W. D. Fisk established a scholarship in memory of his son, Hiram C. Fisk, who is on the Stanford Honor Roll. The amount now available is $250 per annum.

The Alumni Jordan Scholarships

The Alumni Jordan Scholarship Fund has been founded largely by physicians who were at one time students of Stanford University. Its purpose is to pay the tuition fees of two or three medical students of high standing, with the understanding that at some future time the amount will be returned without inerest. The student who once receives this scholarship loan will be entitled to its use throughout his medical course provided his work continues to be satisfactory.

The Dr. Emmet Rixford Scholarship in Surgery

In 1921 Dr. Emmet Rixford, Professor of Surgery in the Stanford Medical School, made a gift of $500, to be awarded to some graduate of Stanford Medical School, or to some member of the staff of the school of rank under that of Assistant Professor, to be chosen by the Medical Faculty, for work on some surgical problem, anatomical, physiological, pathological, or clinical, the problem to be approved by the faculty.

The Mabel Hyde Cory Scholarship

In 1921 Miss Emma L. Martin, '97, and her sister established a scholarship, for four years, of the annual value of $500, in memory of Mabel Hyde Cory, '96, who died February 15, 1921. This scholarship is to be awarded preferably to a needy young woman in the Department of History.

The Ira S. Lillick Scholarship

In 1920 Mr. Ira S. Lillick, of the class of 1897, established a scholarship of the value of $500, to be awarded annually to a worthy student, preferably in Law.

The Mrs. Ira S. Lillick Scholarship

In 1920 Mrs. Ira S. Lillick established a scholarship of the value of $500, to be awarded annually to a worthy student, preferably in Law.

The University Scholarships

In 1919 the Trustees of the University established thirty Stanford Scholarships for Graduate Students, each paying $200 per year of three quarters. Scholarships are awarded for a term of one year, at the expiration of which time the Scholar may be reappointed. Holders of Scholarships are required to pay tuition and incidental fees, the graduation (diploma) fee, laboratory expenses, and all similar charges laid upon other graduate students.

The E. C. Converse Scholarships

In 1921 the University received a bequest of $50,000 from the estate of Edmund C. Converse for the establishment of the E. C. Converse Scholarship Fund. The income of this fund is to be used under the direction and in the discretion of the President or other ranking executive of the University in the establishment and maintenance of scholarships of not exceeding $500 per annum to be paid to needy and deserving students. A part of the estate is now available and five undergraduate scholarships of the annual value of $250 each have been created.

Thomas Welton Stanford Fellowship in Psychic Research

From the "Psychic Fund," created by Mr. Thomas Welton Stanford, in 1913, the Trustees have established the Thomas Welton Stanford Fellowship for Research in Psychic Phenomena.

The Buckel Fellowship

In 1914 the University established, through the coöperation of the trustees of the estate of Dr. C. Annette Buckel, a Research Fellowship for the study of backward and feeble-minded children. The annual income from the Buckel estate is approximately $500, and this is supplemented by a like sum appropriated by the Trustees of the University, making the total amount available for the fellowship $1,000.

Fellowships in Education

In 1919 two fellowships were established in Education of the value of $500 each: one, jointly by Professor Cubberley and the Board of Trustees, to be known as the Fellowship in School Administration; the other jointly by Professor Terman and the Board of Trustees, to be known as the Fellowship for the Study of Superior Children. Ordinarily these will be awarded only to those who have completed at least one year of graduate study and who are ready to proceed to the Doctorate.

The University Fellowships

In 1917 the Trustees of the University established two University Fellowships, and in 1919 six additional Fellowships, of the value of $750 each per year (three quarters). These fellowships are awarded annually by the Committee on Graduate Study with the purpose of fostering advanced study and research in the University. In general these fellowships will not be awarded to students in their first year of graduate study.

The Cyril F. Elwell ('07) Scholarship

In 1919 Mr. Cyril F. Elwell, '07, established a scholarship of the annual value of $500, to be awarded by the Committee on Graduate Study to a graduate student in the Department of Electrical Engineering, upon the recommendation of the Department.

The Lionel Remond Lenox Fellowship in Chemistry

In 1921 Professor Lionel Remond Lenox, of the Department of Chemistry, established a fellowship of the annual value of $600. The conditions under which the fellowship is to be awarded are as follows:

The holder of the fellowship must be a graduate of Stanford University, or of some other college or university of recognized standing, who has taken at least one year of graduate work in the Department of Chemistry of Stanford University, and who is a candidate for the degree of Doctor of Philosophy in Chemistry in Stanford University. He must be of good moral character. He must show an excellent degree of scholarship. The question of the financial needs of the holder need not be primarily considered, though, in general, where there are several applicants of equal degree of scholarship, preference should naturally be given to the one most in financial need.

The selection of the candidate for this fellowship is to rest entirely with the Department of Chemistry.

The Food Research Fellowships

The Food Research Institute has established four fellowships, with stipends ranging from $600 to $1,200 per year (three quarters), for the purpose of promoting research upon food problems.

Belgian Relief Commission Fellowships

In 1919 the Committee for Relief in Belgium arranged for the establishment and support of a number of fellowships for Americans to undertake graduate study in Belgian universities, and an equal number for advanced Belgian students in American universities. Four of these American fellowships have been assigned to Stanford University.

Teaching Fellowships

In 1917 the Board of Trustees established two teaching fellowships in Chemistry of the value of $600 each. In English there are two teaching fellowships, of the value of $500 each.

Sperry Fellowship

In 1919 the Sperry Flour Company established an industrial fellowship, of the annual value of $350.

Harvard Club Scholarships

The Harvard Club of San Francisco offers two scholarships, of the annual value of $350 each, to students residing in the neighborhood of San Francisco who may desire to pursue undergraduate studies in Harvard College, or postgraduate studies in Harvard University. Other things being equal, preference will be given to those desiring to pursue undergraduate studies. In awarding these scholarships the scholarly attainments of the applicants as shown by their records, their character, needs, and general development, will be considered. Applications should be made in writing not later than February 15th, to the Chairman of the Scholarship Committee of the Harvard Club of San Francisco, Mr. George S. Potter, 1827 Pacific Avenue, San Francisco, California.

Yale Alumni Association Fellowship

The Yale Alumni Association of California awards annually the sum of $300 (to which Yale University adds an amount equal to the charge for tuition) to a graduate of the University of California or of Stanford University, for the pursuit of graduate study at Yale. Applications should be addressed to the Secretary of the Yale Alumni Association, University Club, San Francisco.

The Rhodes Scholarships

Under the will of the late Cecil Rhodes two scholarships are assigned to each State and Territory in the United States. Each scholarship has a yearly value of $1,500, and is tenable at any college in the University of Oxford for three successive academic years.

Candidates must be unmarried, must be citizens of the United States, and must be not younger than 19 nor older than 25 on October 1st of the year in which they are elected. All scholars shall have reached, before going into residence, at least the end of their sophomore year at some recognized degree-granting university or college. In accordance with the wish of Mr. Rhodes, the trustees desire that "in the election of a student to a scholarship, regard shall be had to (1) his literary and scholastic attainments, (2) his fondness for and success in manly outdoor sports, such as cricket, football, and the like, (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship, and (4) his exhibition during school days of moral force of character, and of instincts to lead and take an interest in his schoolmates."

The Guild

The Guild is an organization which seeks to make provision for the care of all cases of serious illness among students. This is now accomplished for non-contagious diseases through an arrangement with the Palo Alto Hospital and, for medical students, with the Stanford University Hospitals in San Francisco. For the care of contagious diseases, provision has been made by the maintenance of a Detention Hospital on the University Campus. A reduction of two dollars per day from the regular hospital charges is given all members of the guild; a substantial portion of the charges for medical attention and special hospital service is paid by the guild.

GENERAL REGULATIONS

Registration

ON the appointed Registration Days, in October, January, April, and June, each student must obtain a certificate of registration *in person,* at the Registrar's office.

Matriculated students may register after the appointed Registration Days upon payment of a special fee: two dollars on the first or second day, three dollars on the third day, four dollars on the fourth day, and so on up to the maximum of ten dollars. Registration of undergraduates and specials will not be permitted later than three weeks after the beginning of instruction. (Places are not held for women after the regular registration days, except by permission of the Committee on Registration granted in advance.)

Study-List Card

At the Registrar's office the student receives a card for selection of studies for the quarter. This card, properly filled out, and approved, for lower-division students, by the Committee on Lower Division Administration, for others, by the Major Department, must be filed with the Registrar at the time of registration; but late study cards will be accepted upon payment of a special fee of two dollars. Students registering late are admitted to particular classes only by permission of the instructor concerned. All work for which university credit is desired must be duly registered.

Enrollment in Classes

A student desiring to enter any class presents his certificate of registration to the instructor for enrollment at the beginning of each quarter. Whether the student is qualified for enrollment in a particular class is a question to be decided by the instructor in charge. In general, the prerequisites for taking any given course are noted under "Courses of Instruction."

Change of Studies

A student desiring to drop a subject once taken up, or to take up a new subject after the study card has been filed, must present to the appropriate committee a petition for such change, approved by the major department and by the instructors whose subjects are to be

taken or dropped. In general, petitions so approved, and not involving courses required of lower-division students, if they do not give the student too many unit-hours, or too few unit-hours, and if presented within three weeks after the beginning of the quarter, are granted without question. If presented at a later time in the quarter they will be granted only for extraordinary reasons, and, where the taking up of new subjects is involved, only on payment of a special fee of two dollars for each course; if otherwise accepted but presented after the close of the quarter, they will be granted only on payment of a special fee of four dollars for each course. In the case of petitions to drop subjects during the last four weeks of the quarter, action will be deferred until the close of the quarter.

Change of Major Subject

Petitions to change the major subject will be granted when approved by the departments in charge of both the old and the new subjects, the student being held to all the requirements of the new major subject.

Amount of Work

Fifteen hours per week of recitations or lectures, or an equivalent in laboratory work, constitutes an average quarter's work. In general students may register for as few as *thirteen* or as many as *eighteen* unit-hours; but in the case of students doing outside work for self-support or otherwise, and where considerations of health are involved, special restrictions will be made upon recommendation of the medical adviser; and where conditions or failures have been incurred in the preceding quarter, not more than *fifteen* units may be registered unless by special permission of the Committee on Registration granted in advance. Permission to register for less than *thirteen* units may also be granted for special reasons; but registration for less than *ten* units will not ordinarily be accepted. Students with an average record in the University of 'B' or above may register for as many units in excess of *eighteen* as shall be approved by the Lower Division Committee, or the major department, as the case may be; students with less than a 'B' average may not register for more than *eighteen* units, unless, in exceptional cases, permission to register for additional units is granted in advance by the Committee on Registration. Graduate students are not held to any special number of unit-hours, but registration will not ordinarily be permitted unless such students are prepared to devote at least half of their working time to University study. Petitions for irregular registration should be presented at the beginning of the quarter.

Every unit for which credit is given is understood to represent

approximately, for the average student, three hours of actual work per week, through one quarter. Thus, in lecture or recitation work, for one unit of credit one hour per week may be allotted to the lecture or recitation and two hours for preparation or subsequent reading and study on the part of the student; but if a less amount of time is allotted for preparation or subsequent reading or study, there shall be a proportionate decrease in the amount of credit. Where the time is wholly occupied with drawing, field, or laboratory work, or in the class-room work of conversation classes, three full hours per week through one quarter are expected of the student for each unit of credit; but where such work is supplemented by systematic outside reading or experiment under the direction of the instructor, such a reduction may be made in the actual drawing, field, laboratory, or class-room time as seems just to the department concerned.

Scholarship Honors

High scholastic attainment is recognized by the University in the following ways: By the award of honors upon the completion of the Lower Division, to about the upper tenth of the class; by designating as Stanford Scholars, about thirty students in the Upper Division who will be seniors during the following year; by awarding the degree of Bachelor of Arts "with distinction" to about one-tenth of the graduating class, "with great distinction" to about one-twentieth of the graduating class.

Scholarship Grades

In reporting the standing of students at the end of each quarter the following grades are used: A, B, C, D, passing grades, corresponding in a general way to the terms, 'excellent,' 'good,' 'fair,' 'barely passed'; ('+,' passed, without defining grade; '±,' conditioned; ('—'), failed). In grading classes, 'A' is considered as normally applicable to not more than fifteen per cent, 'B' and 'C' to thirty-five per cent each, and 'D' to fifteen per cent of the students of passing grade. (This distribution of grades is advisory, and is understood to admit of a certain degree of flexibility in the handling of small classes.)

Conditions and Incompletes

A student conditioned or reported incomplete in any subject must remove the deficiency within one calendar year or the work will be considered a failure.

A deficiency due to failure to take or pass a written examination is removed by passing a similar test on the same work. This may be done

by taking a regular class examination in the course if repeated in time, or by taking a special written examination to be held during the fourth week of any quarter. A student is entitled to one examination within the year, either regular or special.

Where deficiencies are due to failure to take or pass an oral examination, the time for holding a new oral examination to remove the condition or incomplete, is determined by the instructor concerned. Compliance with the regulations for written examinations, so far as practicable, is required.

Deficiencies due to other causes may be removed by any work or test satisfactory to the department concerned.

Only one examination to remove a condition is permitted. If an examination to remove an incomplete results in a condition, but one examination to remove the condition is allowed. Instructors will report grades on all such examinations to the Registrar. For every removal of a condition or incomplete, except when removed by passing a regular class examination, a fee of two dollars shall be charged each student. Any deviation from these regulations requires the approval of the Scholarship Committee.

Scholarship Reports and Notices

Mid-quarter reports on scholarship are obtained from all instructors, and students reported as doing unsatisfactory work are notified of their deficiencies.

At the middle and at the end of the quarter each department is notified of all serious deficiencies in scholarship affecting students whose major work is in that department.

When a student is seriously delinquent in scholarship, the fact is communicated to his parent or guardian.

Probation and Disqualification

Standard work is obtaining fifteen units, and as many grade points as registered units, per quarter. This standard applies to each quarter and also as an average standard to be maintained on the entire record of the student.

At the end of the first or second quarter in the University a student is placed on probation who fails to obtain twenty-two counts (the sum of units and grade points). He is considered as failing in his studies, and is disqualified for further attendance at the University if he does not obtain ten counts. At the end of subsequent quarters less than fifteen counts will result in 'disqualification.'

At the end of the second and every subsequent quarter the student's entire accomplishment is compared with what would have been obtained had he done standard work. If he is above, at, or even slightly below standard his scholarship standing is considered normal. But if his deficiency becomes considerable the result is probation, and in serious cases disqualification.

Application for reinstatement is not considered until the end of one calendar year after disqualification and readmission is granted only upon a showing of thoroughly satisfactory accomplishment elsewhere. Work in another college or university must reach an average quality half way between passing and one hundred. If the institution is a member of the Association of American Universities work averaging one-third above passing in place of one-half will be accepted. The grades above passing in any institution will be taken as covering equal portions of the percentages between passing and one hundred. In any case the average must be equal to that required for graduation from such institution. Work outside of a college or university need not be of academic character, but must show diligence, ability, and maturity of purpose.

Leave of Absence in Case of Delinquent Scholarship

Leave of absence will not generally be granted to a student on probation, nor to any student whose work during the current quarter is unsatisfactory, unless applied for at least four weeks before the end of the quarter.

From Special to Regular Standing

Special students may be entered in regular standing on passing examinations in the required number of entrance subjects, provided such examinations are passed not later than two years after matriculation. In place of entrance examinations, university work to the amount of seven units for each entrance unit may be offered in university subjects which are also included in the entrance group. (Entrance examinations are given by the College Entrance Examination Board in June of each year.)

University Credit for Extra Entrance Subjects

Credit toward graduation may be given for entrance subjects in excess of the number required for admission, provided such extra entrance subjects are also university subjects, and are successfully continued in the University within two years after matriculation, and provided the student's general University record is deemed proof of superior scholarship. In general, four units of advanced credit will be granted for each extra entrance unit representing elementary work in a given

subject, and seven units of advanced credit for each extra entrance unit representing advanced work. Application for such university credit must be made within two years after matriculation. After matriculation additional entrance units may be offered only for the purpose of making up entrance deficiencies.

University Credit for Special Courses

Matriculated students on leave of absence may take work in other universities, usually without any restrictions other than those imposed by the institution in question. But work undertaken in any Summer Session may be subject to special regulations, and must be approved by the major department and by the department in which work is to be taken.

Work of a special character taken outside of regularly scheduled classes, *in absentia* or during vacation periods, may be credited under the following conditions: (1) The work must be acceptable as part of the major requirements for the A. B. degree in the department whose courses it parallels or supplements, must be given necessary supervision and direction by such department and subjected to tests equivalent to those in regularly scheduled courses, and must be approved by the major department and by the Committee on Admission and Advanced Standing; (2) Such work may not be offered by students whose general scholarship record is unsatisfactory, nor to cover deficiencies due to poor scholarship; (3) Not more than forty-five units may be credited toward graduation for such special courses.

The last quarter's work of every candidate for a degree must ordinarily be taken in this University; but in special cases, students who have obtained at least one hundred and thirty-five units in resident work, and who have completed all major department requirements, may be exempted from this regulation and permitted to complete the required number of units under the provisions noted above.

Advanced Credit

Students from institutions of equivalent rank, who maintain a satisfactory record after admission, may expect to receive the same standing as at the former institution, except that no such student can be given more than three years' advanced credit (one hundred and thirty-five unit-hours toward graduation), and that differences in standard of entrance preparation will be taken account of. Every candidate must present a full certified transcript of his college record, including entrance credit, and a letter of honorable dismissal.

Recommended graduates of approved State Normal Schools where the normal training has been preceded by a full four years' high school course, or where high school and normal school courses together cover six years' work, may ordinarily be granted an advanced credit of sixty-seven units; in the case of California State Teachers' Colleges, beginning with the 1921 graduating classes, this advanced credit may be increased to ninety units, provided, in the judgment of the Committee on Admission and Advanced Standing, the courses taken by the student are substantially equivalent to the work of the lower division of the University.

Advanced standing for work done before matriculation will generally be given only when certified as having been completed in some institution of recognized collegiate rank, except as provided above for extra entrance units, or, in particular cases, to recommended graduates of approved State Normal Schools. But in special cases permission may be given by the Faculty to receive credit on examination for work equivalent to regular University courses. Application for such examinations, with satisfactory evidence of the work accomplished, must be presented to the Committee on Advanced Standing. Applications for advanced standing on the basis of work done before entering the University must be made within two years after matriculation.

Graduate Standing

Admission to technical graduate standing does not imply admission to candidacy for an advanced degree (for the conditions of such candidacy see p. 109). If graduates of other universities desire to become candidates for the baccalaureate degree, the question of units required for graduation may be waived, upon approval of the Committee on Admission and Advanced Standing, and the degree conferred on the satisfactory completion of not less than forty-five units of university work and the fulfillment of all major and minor requirements. Graduate students not candidates for any degree, may be permitted, upon the approval of the major department, to undertake such work as their previous training seems to warrant.

Leave of Absence

A student desiring to leave the University for a brief time should apply to the Committee on Registration. If leave of absence is desired on account of sickness, the petition must be indorsed by the medical adviser. A leave of absence is merely a justification of the absence and not a relief from the work that has been missed. A leave of absence

is usually necessary only in case of interrupted work; a student in good standing absent one or more quarters may re-enter at the beginning of any quarter without formal petition.

Honorable Dismissal

An honorable dismissal means that the student is permitted voluntarily to withdraw from the University and is commended to the favorable consideration of any institution he may wish to enter. An honorable dismissal may be granted upon written application to any student not under discipline for misconduct.

Conduct of Students

The Committee on Student Affairs exercises the authority of the University over all students individually with respect to personal conduct, and, with the exception of athletic and debating terms, over student organizations which bear the name of the University, or which represent the University in non-academic activities, and, in general, assumes such measure of authority over non-academic organizations of students as may be needful to safeguard the general good name and well-being of the University community.

Individual or collective student enterprises, using the University name, which involve the absence of the participants from the University, must receive the official sanction of the Faculty Committee concerned.

In the government of the University the largest liberty consistent with good work and good order is allowed. Students are expected to show both within and without the University such respect for order, morality, personal honor, and the rights of others as is demanded of good citizens. Failure to do this will be sufficient cause for removal from the University.

In 1908 the Board of Trustees of the University provided that in all future rentals or leases of houses as fraternity chapter houses it shall be expressly stipulated that no intoxicating liquors of whatever kind shall ever be sold or used on the premises. The Trustees also by formal resolution requested the Academic Council to prohibit the use of liquor in fraternity chapter houses, students' club houses, and other student lodgings.

This action of the Board of Trustees is in harmony with the instructions given by the Academic Council to its Committee on Student Affairs, and defines the policy of the University. Prohibition of the use of liquor extends to all student lodgings whether on the campus or elsewhere. The University assumes that the act of registering as a student implies full acceptance of this policy.

Student Control

In 1911-12 the Faculty Committee on Student Affairs entered into an agreement with the University Conferences by which responsibility for the government of the students and for maintaining University standards was assumed by the men and women of the University. This delegation of responsibility, temporarily recalled, for men, in 1918, was resumed in 1919-20, under an agreement between the President and the men of the University. Under this agreement the responsibility for maintaining University standards among the men students is assumed by the senior class. The Men's Student Council is responsible for the enforcement of University rules governing student conduct, all actions of the Council being submitted directly to the President for sanction or disapproval.

University Health Control

The University exercises an advisory control over student health affairs through the Committee on Public Health.

Every student upon entering the University is required to report for a brief examination. General health and evidence of effective vaccination are the important factors in the examination. Any condition which may place a limitation on the amount or kind of work planned by the student may be discussed with him or made the subject of a report to his major department or to the Committee on Registration.

Students intending to train for any of the athletic teams, or to register for gymnasium work, are required to pass a careful physical examination at the beginning of each quarter.

VACCINATION

Not later than three weeks after the day of registration every student must file with the Committee on Public Health a certificate, signed by the vaccinator, who must be a duly licensed and practicing physician, giving exact dates of vaccination, and showing either successful vaccination within seven eyars, or unsuccessful vaccination twice within the past twelve months.

Non-compliance with these requirements will result in a fine of two dollars after three weeks, and an additional fine of four dollars after four weeks, and cancellation of registration after five weeks from the day of registration.

Certificates are to be filed at the Registrar's Office. They will be returned upon request. "Conscientious objections" will not be recognized as exempting anyone. Unavoidable delay, or failure to secure a satisfactory certificate, will not exempt anyone from the fine.

(It is advised that candidates comply with this requirement before coming to the University, and that vaccination certificates be sent in advance by mail. Blank certificate forms may be obtained on application to the Secretary of the Public Health Committee, at the Registrar's Office.)

"Immunity Reaction" will be considered equivalent to one unsuccessful try. Only "vaccinia" will be accepted as successful vaccination.

DEGREES AND TEACHING CREDENTIALS

CANDIDATES may be presented for graduation in January, April, June, and October.

No degree will be conferred upon any person who has not spent at least one year in resident study at the University. No honorary degrees are given.

Lower Division Requirements

The Lower Division consists of the first and second years of the University curriculum. Its object is to introduce the student to fundamental fields of human interest, and to this end it requires the completion of certain studies during the first two years. The members of the Committee on Lower Division Administration stand in the same relation to students enrolled in the Lower Division as that occupied by departmental advisers toward their major students.

The work of the first two years is made up of group requirements, subject requirements, and electives, under the supervision of the Committee on Lower Division Administration. These requirements are as follows:

GROUP REQUIREMENTS

During each of the first two years the student is required to take *nine units in each of the following groups:* (1) language and literature (English and foreign), formative art; (2) natural sciences, mathematics; (3) social sciences (including history, political science, economics, philosophy, and education).

SUBJECT REQUIREMENTS

Six units in English composition (English 2, three units per quarter for two quarters), to be taken during the second year in the University. (A course in elementary English composition (English A) is also prescribed for first-year undergraduates who do not satisfy the matriculation test.)

Twenty-two units in one foreign language, or fifteen units each in two foreign languages. (This requirement may be anticipated in the high schools, its equivalent being three entrance units in one foreign language or two entrance units each in two foreign languages.)

Nine units in a biological science, and nine units in either Physics or Chemistry. (One of the sciences may be anticipated in the high school, its equivalent being one entrance unit in a biological science, or in Physics or Chemistry, or in general science.)

Nine units in American history and nine units in general history, normally taken during the second year. (One of the history requirements may be anticipated in the high school, its equivalent being one entrance unit in history.)

Twelve units in Problems of Citizenship, to be taken during the first three quarters in the University (four units per quarter).

All undergraduates are required to devote three schedule hours per week, for the first six quarters, either to physical or military training. (Students entering with advanced standing may offer equivalent training in other colleges or universities in whole or partial fulfillment of this requirement.)

A particular course may count toward the fulfillment of both subject and group requirements.

Major Subject

The selection of a Major Subject will ordinarily be made at the end of the second year, upon completion of the requirements of the Lower Division. The Lower Division student may, however, at the beginning of any quarter, designate the particular department in which he expects later to do his major work, and may be directed to the department for consultation and advice regarding electives before making up his study-list.

At the beginning of the junior year, and upon completion of the Lower Division requirements, the student selects as a Major Subject the work of some one department. The Major Department has the authority to prescribe not more than sixty units in the Major Subject (exclusive of elementary courses in the Major Department which may be offered for entrance). The Major Department shall also recommend such other courses as it may consider desirable, and shall exercise an advisory supervision over the student's curriculum from quarter to quarter. It shall be considered a general principle of University policy, to be departed from only in exceptional cases, that at least ninety of the one hundred and eighty units required for the degree be taken outside of the Major Department.

In applied science the Major Department may prescribe so much of the entire one hundred and eighty units as it shall deem essential to the technical or professional requirements of the major subject.

Within these limitations the work in all departments is elective, and the student may freely choose any course which his previous studies have prepared him to undertake.

(A student in regular undergraduate standing who does not intend to become a candidate for the A. B. degree, may choose, with the approval of the Lower Division Committee, or of the Major Department, any course in the University which his previous training has prepared him to undertake.)

Bachelor of Arts

The degree of Bachelor of Arts (A. B.) is conferred upon candidates who have fulfilled the following requirements:

(1) The completion of one hundred and eighty (quarter) units of university work, including the required lower division courses, together

with the required six quarters physical or military training (six units). (A special student who has completed two hundred and twenty-five units of university work, including all lower division and major requirements, and whose general university record is deemed proof of superior scholarship, may become a candidate for graduation on approval of the Committee on Admission and Advanced Standing. Petitions to this end will not ordinarily be considered by the Committee until after the student has completed one hundred and eighty units of university work.)

(2) The acquirement of as many grade points as there are units registered for on the candidate's record card. A unit of credit passed with a grade of 'A' counts three grade points; with a grade of 'B,' two grade points; with a grade of 'C,' one grade point; with a grade of +, one grade point; with a grade of 'D,' no grade points. A 'condition' removed does not count grade points, no matter what the final grade may be. (Advanced credit for work in other institutions counts one grade point for each unit of credit.)

(3) The completion of the major subject requirements as prescribed by the Major Department.

The recommendation of the Major Department is necessary to graduation.

Forty-five units constitute a normal year's work (see p. 98), but the ordinary class divisions (freshman, sophomore, junior, senior) are not recognized by the University. The degree is conferred whenever the requirements are met, without regard to the time spent, except that at least forty-five units (including, except in special cases, the last fifteen) must be completed in this University.

As a recognition of high scholastic attainment the Bachelor's degree may be granted "with distinction" or "with great distinction."

Candidacy for Advanced Degrees

Candidates for advanced degrees must be registered in the University and must file with the Registrar an application for candidacy. In the case of candidates for the degree of Master of Arts or Engineer this application must be accompanied by a program of study, approved by the department faculty concerned. The approval of this program of study by the Committee on Graduate Study is necessary for admission to candidacy for the degree. It is to be submitted at the beginning of the quarter next preceding that in which the degree is to be taken. Candidates for the degree of Doctor of Philosophy, to gain admission to candidacy, must file in the same manner their program of study, and obtain the approval of the program by the Committee on Graduate

Study; they must also obtain the final approval of the Committee as set forth below in Section 4 of the conditions governing the granting of that degree. Advanced degrees will be conferred only upon the recommendation of the Committee on Graduate Study. In no case will the degree of Master of Arts be conferred in less than three quarters. Statements once submitted must be kept on file and can not be withdrawn even after substitutes have been filed and accepted. Candidates for the degrees of Juris Doctor and Doctor of Medicine are exempt from the requirement that a program of study shall be filed a definite time in advance.

Master of Arts

The degree of Master of Arts (A. M.) is conferred on graduates of this University, and on those who have had equivalent training elsewhere, upon the satisfactory completion, in residence, of one academic year of work beyond the baccalaureate requirements of the department in which the degree is sought, and upon the presentation of an approved thesis, and the passing of such general or final examination as the major department may require. A longer period of residence will be required of candidates who are inadequately prepared or who devote less than the normal proportion of time to their graduate course. Work may be done in connection with the regular courses of instruction or, as research, independently of them. The program of study must form a consistent plan of work pursued with some definite aim, whether it lies wholly in a single department or field of study, or in more than one. At least two-thirds of a year's work must be devoted to advanced or graduate study in the major subject or in intimately allied subjects.

A candidate for the degree of Master of Arts must display ability to do independent work. A report upon the character of the work done shall be made by each instructor under whom a candidate is registered.

The master's thesis, bearing the approval of the instructor under whose supervision it was prepared, must be submitted to the Committee on Graduate Study by the date on which instruction closes for the quarter in which the degree is taken; upon acceptance, it shall be suitably bound and placed in the University Library. The Committee on Graduate Study requires that the original, not a carbon copy, of the master's thesis, written on paper of standard size and weight, be submitted and filed. The title-page shall be of the form prescribed by the Committee.

Engineer

In the departments of applied science the professional degree of Engineer is conferred on graduates of this University, and on those who have had equivalent training elsewhere, upon the satisfactory comple-

tion, in residence, of one or two years of professional study beyond the baccalaureate requirements of the department in which the degree is sought, and upon the presentation of an approved thesis, showing ability to do independent work. Upon the recommendation of the department, and in order to permit the carrying on of advanced work with equipment or under conditions not available at the University, the requirement of residence may in part be waived.

The special regulations stated above for the degree of Master of Arts apply also to the degree of Engineer.

Juris Doctor

The degree of Juris Doctor (J. D.) is conferred on students who have previously received the academic degree of Bachelor of Arts, or an equivalent degree elsewhere, upon the completion of the three years' professional law course. The first year of the professional law course may be taken by candidates for the A. B. degree.

Doctor of Medicine

The degree of Doctor of Medicine (M. D.) is conferred on students who complete the five years' curriculum in medicine (which includes the interne year), based upon the three years' pre-medical course as laid down by the University.

Doctor of Philosophy

The degree of Doctor of Philosophy (Ph. D.) is conferred on graduates of this University, and on those who have had equivalent training elsewhere, upon the satisfactory completion of at least three years of graduate work, beyond the baccalaureate requirements of the department in which the degree is sought, under the following conditions:

1. At least the last year of study must be spent in residence at this University.

2. At least one year prior to the date when the degree is sought, the candidate must show a reading knowledge of French and German in his special field. The faculty of the department in which the major work is taken determines whether this requirement has been met.

3. The program of study must include one major subject and one or two minors. The minor subject or subjects shall represent approximately one-third of the program of study; except that such minor subjects may be waived upon the recommendation of the major subject department, with the approval of the Committee on Graduate Study, when the breadth and extent of the candidate's training appear to the Committee to justify such a course.

4. Final approval of candidacy must be obtained from the Committee on Graduate Study, not later than the close of the second quarter preceding the one in which it is proposed to take the oral examination. This approval will be based on the report of a special committee of seven members of the faculty to be appointed by the chairman of the Committee on Graduate Study, of whom one member shall be chosen from each department represented by the major and minor subjects of the candidate, and the other members (one of whom shall be designated as chairman) from the faculties of other departments. This special committee shall be appointed at the beginning of the last year of candidacy and shall consider and report (*a*) whether the candidate has pursued in a satisfactory manner the program of study upon which the provisional approval of candidacy was obtained, as evidenced by the record of his studies and by such written work as he may wish to present for inspection; (*b*) whether the preliminary draft of his thesis, or such portion of it as may be deemed representative, gives promise of being completed satisfactorily as provided below; and (*c*) whether he is eligible, in respect of comprehensive grasp of his major and minor subjects, to be admitted to the final oral examination. The report will be based in part on a conference with the candidate ordinarily of not more than one hour's duration. The major and minor departments should also certify to the special committee the results of such comprehensive written examinations as can be conveniently set before the time of final approval of candidacy.

5 The candidate must present a thesis at least six weeks before the close of the quarter in which the degree is sought, in form and content acceptable to his department and to the Committee on Graduate Study. Before the degree is conferred he must either (*a*) deposit one hundred printed copies of the thesis in the university library, or (*b*) deposit an original typewritten copy of the thesis with the librarian, and at the same time either deposit the sum of $50 or file an acceptable surety bond in the sum of $100 with the treasurer of the University, as a guarantee that the thesis will be printed and the required number of copies deposited within two years of the date of receiving his degree. If one hundred copies of the thesis are deposited within the requisite period of two years, the candidate's deposit or bond will be returned to him; if not, the Committee on Graduate Study may use the sum forfeited for the printing, by the University, of the thesis or of such portion as is deemed best.

In case the candidate can present evidence that his thesis, or an acceptable portion of it, has been accepted for publication by a reputable scientific journal or in the proceedings of a learned society, and that

publication within two years has been assured, the degree may be conferred after he has deposited, together with the typewritten copy of the thesis, a sufficient sum to cover the cost of one hundred off-prints from the journal or volume in question. When the thesis is of unusual length, and at the same time is of such a character that a representative portion, of independent value, can be excerpted, printed copies of this portion may be deposited with the librarian, in place of the whole, with the approval of the department concerned and the Committee on Graduate Study. In such cases the printed portion must amount to not less than twenty-four octavo pages, and must be accompanied by a statement indicating the nature of the entire thesis.

6. In addition to satisfying the requirements of major and minor departments, the candidate must pass a final oral examination approximately three hours in length by an examining committee of the faculty, conducted in the presence of such other members of the faculty as care to attend. This examining committee shall consist of (1) the chairman of the Committee on Graduate Study, presiding; (2) the professors in the group of departments in which the major subject lies; (3) in addition, the professor or professors in charge of the minor subject or subjects, if lying in another group of departments. The five groups of departments are language and literature, history and social sciences, biological sciences, pure mathematical and physical sciences (including applied mathematics), engineering sciences. The departments of philosophy and education are for this purpose members of all groups; but, in case of a candidate in either subject, shall be affiliated to the group to which the candidate's work is most germane. The Committee may at its discretion invite other members of the faculty to participate in the oral examination.

Persons who contemplate offering themselves as candidates for the Ph. D. degree are invited to correspond with the instructors in the subjects involved.

Advanced Degrees in the Medical School

The departments of the Medical School are considered as equivalent to other departments of the University in respect to candidacy and requirements for the degrees of Master of Arts and Doctor of Philosophy, and all the foregoing regulations apply to these departments and department faculties as to departments and department faculties at the University, with the following modifications and limitations:

1. Candidates for these degrees must have received the degree of A. B. at Stanford, or an equivalent training elsewhere, and must have the approval of the department faculty in which the degree is sought.

The M. D. degree will ordinarily be required as a prerequisite for those wishing to do clinical work.

2. Time spent in candidacy for the degree of Master of Arts or Doctor of Philosophy will not be counted towards the degree of Doctor of Medicine.

TEACHING CREDENTIALS

Teacher's certificates are issued by County, and City and County Boards of Education under the provisions of Section 1519, subdivision 5 (*a*), Section 1775, subdivision 1 (*a*), and Section 1792 of the Political Code of California. The State Board of Education of California, in accordance with the state law, has empowered the University (through the School of Education) to grant recommendations for teacher's certificates, valid in this state, and of four grades: (1) Elementary, (2) Junior High School, (3) High School, and (4) Special. Preliminary certificates, valid only for cadet teaching in connection with Education course 28, also are granted. These are valid for teaching and are granted under the following conditions:

1. For the Elementary-School Certificate

(Valid for teaching in the eight grades of the elementary schools.)

1. The possession of a Bachelor's degree from this University.

2. The completion of at least 15 quarter units of college work in each of three of the following departments or lines of work: English, some other language than English, Graphic Art, History and Economics, Mathematics, Physical Science, Biological Science, General Science.

3. The completion of at least 18 quarter units of work in the Department of Education, which must include: (*a*) Practice in Teaching and School Management, 6 units (courses 27 and 28 will satisfy this requirement); (*b*) Elementary Education, 6 units (courses 18, 50, and 51 may be used to satisfy this requirement); (*c*) Additional work in Education, 6 units (courses 1, 2, 3, 12, 19, 37, 46, and 49 are suggested as desirable courses from which to select, though other courses may be taken if desired).

2. For the Junior-High-School Certificate

(Valid for teaching in the seventh, eighth, or ninth year of the public schools of California, when organized as intermediate schools or junior high schools.)

1. The possession of a Bachelor's degree from this University.

2. The completion of at least 23 quarter units of approved work in the Department of Education, in the case of non-normal-school graduates, and of at least 8 units, in the case of normal-school graduates, including Education 26 in both cases.

3. The completion of additional work in subject-matter courses of not less than the following:

(*a*) For Normal-School Graduates, either of California State Teachers Colleges or of normal schools elsewhere which have been accredited by the State Board of Education as equivalent, not less than one year (45 quarter units) of college work, of which at least 30 units shall have been in two of the following departments or lines of work: Latin, German, French, Spanish, English, History, Mathematics, Physical Science, Biological Science;

(*b*) For non-Normal-School Graduates who possess a valid California Elementary-School Teacher's Certificate, not less than two years (90 quarter units) of college work, of which one-half (45 units) shall have been in three of the departments or lines of work listed above under (*a*).

3. For the High-School Certificate

(Valid to teach in the high schools or elementary schools, or to do supervisory work, in California.) In all cases the candidate must hold a Bachelor's degree from some institution requiring eight years of high-school and college work for such degree, must satisfactorily complete the required work in two Teaching Majors, or one Teaching Major and two Minors, and in addition must complete in this University a varying amount of graduate study, to be determined by the following conditions):

GROUP I: STANDARD GROUP

1. One year (at least 39 quarter units) of graduate study, which shall include one full-year course of advanced or graduate work (not less than 6 units) in at least one subject in which recommendation is sought.

2. At least 23 quarter units in Education, including the following courses: (*a*) a course in School and Classroom Management (2 units); (*b*) work in actual practice of teaching, with conferences (6 units); (*c*) a Teacher's Course in at least one subject in which the candidate expects to be recommended for certification, if such course be given in the institution and be accepted or listed under the work in Education (3 units maximum for all such courses); (*d*) a course in Secondary Education, presenting particularly the purpose and attainable goals of high-school work (3 units); (*e*) such other courses relating to the theory, function, and administration of public education, as are needed to complete the required 23 units.

3. Candidates who have taught or been engaged in school supervision in this or any other state, and who present credentials showing that they have done so with reasonable success, may be excused from six of the twenty-three units of Education represented by the practice teaching, and may also be allowed to substitute other work in Education for the course in School and Classroom Management. All students desiring such exemption must make application on Form B, to be obtained at the office of the Secretary of the School of Education, Room 52.

GROUP II: EXPERIENCED-TEACHERS' GROUP

Teachers who have had at least seventeen months of satisfactory experience in elementary or secondary schools, in this or other states, may be exempted, if their application for such exemption is approved by the School of Education, from as much as one-half of the year of graduate work and from as much of the required work in Education as their experience seems to warrant. In any case all such persons will be expected to meet at least the following requirements:

1. Two quarters (at least 26 quarter units) of graduate study, which shall include not less than 4 units of advanced or graduate work in at least one subject in which recommendation is sought. Students who can arrange their graduate work so as to be present during the summer quarter may satisfy the resident requirement by one and a half quarters (20 quarter units), if other requirements can also be met in this time.

2. Such number of satisfactory units in Education, including (*a*) Secondary Education (3 units) and (*b*) a Teacher's Course in at least one subject in which the candidate expects to be recommended for certification, as may be determined

after consideration of the individual case. Application for exemption from Education requirements on the basis of teaching experience must also be made on Form B.

GROUP III: NORMAL-GRADUATE GROUP

1. Graduation from an approved normal school.

2. Two quarters (at least 26 quarter units) of graduate study, which shall include not less than 4 units of advanced or graduate work in at least one subject in which recommendation is sought (with permission to reduce this to one and a half quarters as under Group II).

3. At least 8 quarter units in Education, including (*a*) Secondary Education (3 units); (*b*) a Teacher's Course in at least one subject in which the candidate expects to be recommended for certification, if such course be given in the institution and be accepted by and listed under the work in Education (3 units maximum for all such Teacher's Courses). In lieu of Teacher's courses other courses in Education must be taken to make up the required eight units.

GROUP IV: SPECIAL NORMAL-COURSE GROUP

1. Two quarters (at least 26 quarter units) of graduate study, which shall include not less than 4 units of advanced or graduate work in at least one subject in which recommendation is sought (with permission to reduce to one and a half quarters as under Group II).

2. At least 8 quarter units in Education, including (*a*) Secondary Education (3 units); (*b*) a Teacher's Course in at least one subject in which the candidate expects to be recommended for certification, if such course be given and be accepted by and listed under the Department of Education (3 units maximum for all such courses). In lieu of Teacher's Courses other courses in Education must be taken to make up the required eight units.

3. One half-year (preceding or following the two quarters of graduate work) in any California State Teachers College which offers a special half-year (or two terms) of full-time instruction, especially selected for college graduates preparing for high-school certification in California, and approved by the State Board of Education.

4. For Special Certificates

A Special Certificate of Secondary grade, authorizing the holder to teach only such branch or branches and in such grades as are named in such certificate (manual and fine arts, technical arts, household arts, commercial subjects, physical culture, music) may be granted as follows:

1. To recommended candidates who have had at least four years' instruction beyond that required for graduation from a high school maintaining a four-year course in advance of the eighth grade, or who have had an equivalent amount of training.

2. At least one-half (90 quarter units) of this four years of collegiate instruction must have been devoted to study or work in the special subject or subjects in which application for certification is made, and in such subjects as are strictly supplementary thereto, as arranged and approved by the School of Education of this institution. (See *Annual Announcement of the School of Education,* Part VII.)

3. At least 23 of the 90 quarter units required to be given to the special subject or subjects must have been devoted to the study of the pedagogical subjects suited to the training of a secondary-school teacher, at least 9 units of which must have been devoted to practice teaching, including methods of instruction in the special subject or subjects, under competent supervision. Ordinarily courses 20, 27, and 28 must be included.

4. Time devoted in the secondary-school period to study or work in the special subject or subjects in which the candidate desires certification may be substituted at the rate of half-time for similar studies or work in the collegiate period. Such substitution, though, shall not exceed one-half of the total time required in the special subject or subjects. One year's successful experience in teaching may be substituted for half of the required pedagogical work, and two years' teaching experience may be substituted for the entire pedagogical requirement; but all such substitutions are subject to determination by the School of Education in individual cases. Application for such substitutions must be made to the School of Education.

5. For Preliminary Certificates

Recommendations for Preliminary Special or Preliminary Regular High School Teacher's Certificates, authorizing the holder to do cadet teaching, without salary, in any secondary school in the county, are also granted to those enrolled for Practice in Teaching, Education 28. Those wishing to do practice teaching in elementary schools secure the recommendation for such preliminary certificates through the State Teachers College at San Jose.

Application for a Teaching Credential

1. When any student has spent the requisite time in study at this University, and has completed the prescribed program of studies in Majors and Minors for the High School Teacher's Recommendation, or the special course of study required by the School of Education and by the regulations of the state for an Elementary-School, a Junior High-School, or a Special or Vocational Type of Teacher's Recommendation, or the requirements for recommendation for certification in some other state, such student shall make application for the type of Recommendation for a certificate desired and leave such application with the Secretary to the School of Education, in Room 52. The Recommendation desired shall be granted only after application has been approved by the Committee on Credentials and Degrees of the School of Education.

2. All Teacher's Recommendations for the High School Certificate in California hereafter issued will state on their face the particular Majors and Minors which the holder thereof has made special preparation to teach, and holders of the old form of general recommendation will be permitted to have their preparation and teaching experience adjudged in terms of the new standards for Majors and Minors, and to exchange the old forms of recommendation for the new.

3. Whenever the holder of any Recommendation for either a regular or a special High School Certificate, specifying Majors and Minors or special subjects on its face, shall by further study build up Minors into Majors, or add new Majors or Minors or special subjects, then such addition shall be recorded on the face of the Teacher's Recommendation.

APPOINTMENT OFFICE

The Appointment Secretary is a member of the President's executive staff, with offices in the Administration Building. The duties of this secretary are briefly as follows:

1. To assist students and graduates of the University to obtain permanent employment or promotion in the kind of work for which they have prepared themselves.

2. To help students of the University who are earning part or all of their own expenses to find suitable part-time employment.

3. To help students who wish it to find full-time temporary employment, whether the purpose be merely to earn money or to become more proficient in their chosen field of work.

4. To give students and graduates who make inquiries, as accurate information as possible regarding the actual opportunities presented by the different fields of employment. The investigation which this work involves is an important feature of the Appointment Secretary's duties.

Statistics covering the work accomplished are compiled annually.

The Appointment Secretary aims to secure and keep on file a complete record of the education, experience, and personal qualifications of each candidate for a permanent position, to be used by prospective employers in determining whether or not the candidate is qualified for the position to be filled. That the statements made may be frank and reliable, they are never shown to candidates.

The University reserves the right of refusing to extend its coöperation to candidates who apply for positions for which they are manifestly unfit.

Forms for registration may be obtained of the Appointment Secretary upon request. When asking for forms it is necessary to state whether part-time, temporary, or permanent employment is wanted, and, in the case of permanent employment, whether teaching or some other profession.

Teachers must renew registration annually, preferably in January. Those desiring other kinds of permanent employment should renew their registration the first of every month—particularly the first of September, which is the beginning of the academic year. Those seeking part-time or temporary employment must renew registration at the beginning of each quarter. The responsibility of renewing registration is placed upon the candidate.

New students who expect to earn part or all of their expenses at the University, should apply to the Appointment Secretary for registration forms as soon as they are sure they will be admitted to the University.

Candidates for permanent positions are charged $1.50 at the time of registration. This sum covers the actual cost of collecting records. A small charge is also made for editing, copying, and mailing records. All classes of candidates are charged for telephonic and telegraphic bills incurred in their behalf. No charge is made for other services rendered candidates for part-time or temporary work, and no charge is made for the securing of positions of any kind.

All communications should be addressed to The Appointment Secretary, Stanford University, California.

COURSES OF INSTRUCTION

(The asterisk (*) indicates that the course is repeated for the quarter named; otherwise courses announced for more than one quarter are continuous. The enrollment in the various courses is printed in italics at the end of the descriptive matter.)

ANATOMY

ARTHUR WILLIAM MEYER, FRANK MACE MCFARLAND, Professors.
ROBERT BENNETT BEAN, Acting Professor (Spring Quarter).
CLARA S. STOLTENBERG, Associate Professor.
EDWARD ALLEN BOYDEN, Acting Associate Professor.
†EDGAR DAVIDSON CONGDON, Assistant Professor.
EMILY M. BARTLETT, Assistant.

REQUIRED COURSES

1. General Histology and Microscopic Anatomy.

A course dealing with the elementary structure and vital activities of the animal cell, the histology and development of the tissues, and their combination into the organs of the Vertebrates, with especial reference to the Mammalia. Elementary histological technique is taught during the course. Open to medical students, and to others properly prepared, so far as laboratory space permits.

4 units, autumn and winter quarters (MCFARLAND) Lec. by arrangement, Lab. (autumn) MT 9–12, W 1:05–4:05; (winter) MTTh 1:05–4:05
autumn, 38; winter, 40.

2. Osteology.

Students will be expected to familiarize themselves thoroughly, on their own initiative, with the surface anatomy of the bones of the skeleton. This individual work will be supplemented by the laboratory study of special aspects of the subject under the supervision of instructors. Not given as a separate course, but in connection with courses 3, 4, and 5. Students should, however, enroll separately for this work, to which 3 units of credit are assigned.

autumn, 55

3-4-5. Dissection of (3) the Head, Neck, and Thorax; (4) the Upper Extremity; (5) the Abdomen and Lower Extremity.

No one will be assigned to less than one of the above parts nor will credit be given for less, save by special arrangement.

8, 3, 6 units (respectively), autumn, *winter, and *spring quarters (MEYER), (autumn) Lab. WThFS 9–12; (winter) Lab. MTWThFS 9–12; (spring) Lab. MTW 1:05–4:05, ThFS 9–12
autumn, 82; winter, 72; spring, 57

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† Absent on leave, 1921–22.

6. Neurology.

A study of the structure of the central nervous system of man by means of dissections and prepared slides, supplemented by dissections of the central nervous system of other mammals.

5 units, autumn and *spring quarters (Stoltenberg) (autumn) Lec. TTh 11, Lab. MWF 8–11; (spring) Lec. TTh 8, Lab. MWF 9–12
autumn, 17; winter, 14

Optional and Advanced Courses

7. Cytology.

The course deals with the structure and functions of the animal cell with special reference to the reproductive processes. Lectures, laboratory work, and assigned reading. Open to those who have had courses in Histology, Embryology, and Microscopic Technique.

3 to 5 units, spring quarter (McFarland) MTWThF afternoons

8. Special Courses.

Advanced Courses in Histology, Histogenesis, Microscopic Anatomy, Cytology, or Microscopic Technique will be planned to suit the needs of individual students. Open to those who have had courses in Histology and Embryology.

2 to 5 units, spring quarter (McFarland) MTWThF afternoons
spring, 6

9. Topographical Anatomy.

The work consists of the laboratory study of frozen sections of fetal, infantile, and adult cadavers made in various planes, and of dissected and specially injected preparations, supplemented by models and atlases. It is suggested that students who can afford the time supplement courses 3, 4, and 5 by the respective portions of course 9 immediately on completing the dissection of a part. Open to students who have completed courses 1, 2, 3, 4, and 5.

2 to 5 units (Meyer) By arrangement

10. Anatomy of the Sense Organs.

A study of the sense organs by means of dissections and prepared slides, supplemented by models and prepared dissections.

2 to 4 units, winter and *spring quarters (Stoltenberg)
(autumn) TTh 8–11, (winter) by arrangement
winter, 3; spring, 6

11. Morphogenesis.

Factors influencing animal form and structure are considered. Especial attention is given to man and mammals. Lectures and assigned reading. Elective.

2 units, winter quarter (Congdon) [Not given in 1921–22]

12. Human Embryology.

This course will be offered as soon as adequate provision can be made. Course 13 in the Department of Zoology is a prerequisite.

13. Investigation and Special Work.

The facilities of the laboratory are always at the disposal of properly qualified students or physicians who desire to undertake the investigation of some problem in gross or microscopic anatomy or in embryology. Theses and special work must be arranged for individually, but may begin at any time.

autumn, 6; winter, 9; spring, 3; summer, 1

14. Conferences in Anatomy.

Special topics are assigned and outlines and references provided for discussion three hours weekly.

3 units (MEYER) By arrangement
winter, 7

REQUIREMENTS FOR ADVANCED DEGREES.—In addition to the requirements published in the University *Register* and the *Announcement of the School of Medicine,* students desiring to be admitted to candidacy for the degree of Master of Arts in Anatomy must have satisfactorily completed one year's work in histology and microscopic anatomy, at least one quarter of embryology, and possess a knowledge of laboratory technique adequate for the investigation to be undertaken. For admission to candidacy for the degree of Doctor of Philosophy a reading knowledge of both French and German is further required.

DEPOSIT FEES.—A deposit of $2.50 for microscopes and of $10 to cover damage to or loss of bones, is required of all students registering in gross and in microscopic anatomy. This sum, less charges for damage or loss, is refunded at the close of the academic year, except in the case of students discontinuing work. Such may obtain the refund at the end of the quarter. Students who are not registered in medicine are charged a fee of $15 for each of courses 3, 4, and 5, and $5 for each of the other courses, except 13 and 14.

APPLIED MATHEMATICS

LEANDER MILLER HOSKINS, WILLIAM ALBERT MANNING, HALCOTT CADWALADER MORENO, SIDNEY DEAN TOWNLEY, Professors.

LEO GREGORY GIANINI, Instructor.

FREDERICK EMMONS TERMAN, HORACE EDWARD WHEELER, Teaching Assistants.

The courses in Applied Mathematics are planned primarily to meet the needs of students in Engineering. The aim is to make these courses practical in the sense of furnishing thorough drill on fundamental principles and much practice in their application. Emphasis is laid upon accuracy and system in the solution of numerical problems. Students whose training in arithmetical work has been deficient, or who are otherwise inadequately prepared, or who lack aptitude for mathematical study, cannot pursue these courses successfully.

Students majoring in any engineering department should have entrance credit in the preparatory subjects of algebra (one and one-half units), plane geometry, and plane trigonometry. This prepara-

tion is regularly required for admission to any of the following courses except Descriptive Astronomy.

The mathematics regularly required of students in Engineering consists of courses 1, 2, and 3. Each of these courses runs two quarters, 5 unit-hours per quarter, and they will regularly be taken in the order *1a*, *1b*, *2a*, *2b*, *3a*, *3b*. It is possible, however, to take *2b* and *3a* simultaneously, but this can be permitted only in the case of students having thoroughly satisfactory records in the preceding courses. Students whose preparatory records show excellence, not only in mathematics, but in general training, may, with the approval of the instructor, enter course *1b* without having taken *1a*.

1. Elementary Analysis.

This course presupposes a familiarity with the elements of algebra and trigonometry, and is designed to strengthen the command of the student over these subjects and to give him a working knowledge of the method of coördinate geometry. Readiness in the application of the fundamental principles of algebra, trigonometry, and geometry to the solution of numerical problems is of fundamental importance to the engineer, and this side of the work is emphasized throughout the course.

1a. First half of course 1.

5 units, autumn, *winter, and *summer quarters (Manning, Gianini, Terman, Wheeler)
autumn (4 sections), 32, 26, 35, 24; winter (2 sections), 16, 31; summer, 12

1b. Second half of course 1.

5 units, autumn, *winter, and *spring quarters (Manning, Moreno, Gianini, Terman, Wheeler)
autumn (2 sections), 23, 24; winter (3 sections), 38, 37, 44; spring, 40

2. Calculus.

An elementary course in Differential and Integral Calculus, in which emphasis is laid on fundamental principles and simple applications.

2a. First half of course 2.

5 units, autumn, *winter, *spring, and *summer quarters (Moreno, Gianini, Terman)
autumn, 43; winter, 48; spring (3 sections), 37, 30, 35; summer, 18

2b. Second half of course 2.

5 units, spring, *autumn, *winter, and *summer quarters (Manning, Hoskins, Moreno)
autumn (2 sections), 44, 27; winter (2 sections), 20, 14; spring, 31; summer, 35

3. Theoretical Mechanics.

An elementary course covering the fundamental principles of Statics, Kinematics, and Kinetics, restricted mainly to coplanar forces and to plane motion of particles and of rigid bodies. The course is designed as preparation for the courses in Applied Mechanics taken by students of Engineering, but is open to all whose preparation includes the equivalent of courses 1 and 2.

3a. First half of course 3.

5 units, winter and *spring quarters (Hoskins) Winter, MTWThF 10
winter, 100; spring, 40 Spring, MTWThF 9

3b. Second half of course 3.

5 units, spring, *summer, and *autumn quarters (HOSKINS, MORENO)
autumn, 45; spring, 88; summer, 18

7. Analysis.

5 units, winter quarter (MANNING)
winter, 1; spring, 1

8. Engineering Mathematics.

This course is designed to meet the needs of students in Electrical Engineering, and should be taken by those intending to take course 10 in Electrical Engineering.

3 to 5 units, autumn quarter (MORENO) By arrangement
autumn, 12

9. Graduate Courses.

Advanced courses in Theoretical Mechanics, Hydromechanics, Theory of Heat, Theory of the Potential Function, Theory of Elasticity, or other subjects, may be arranged for students having the requisite mathematical training.

9a. Directed Reading.

2 units, winter quarter (MORENO)
winter, 1

ASTRONOMY AND GEODESY

The course in Descriptive Astronmy is designed especially to meet the needs of students who have time for only a general knowledge of the subject. Course 11 is designed especially for students of Engineering and Geology who desire a working knowledge of practical astronomy. The other courses are intended for students of Mathematics or Civil Engineering who wish to prepare themselves for geodetic work.

10. Descriptive Astronomy.

This course consists of a general survey of the various branches of astronomy, including a study of the celestial sphere, the bodies of the solar system, comets, the fixed stars, and other heavenly bodies. The treatment is non-mathematical.

5 units, autumn quarter (TOWNLEY)
autumn, 29

10a. Observational Astronomy.

Study of constellations and various astronomical bodies: Elementary methods of determining latitude and longitude. One afternoon or evening per week. Supplementary to course 10.

1 unit, autumn quarter (TOWNLEY)
autumn, 6; winter, 2

11. Practical Astronomy.

The theory and practice of the determination of latitude, azimuth, time, and longitude, with sextant and engineer's transit. Intended especially to meet the requirements of students of civil engineering, geology, and navigation. Course 1, differential calculus, and surveying are prerequisites.

3 or 4 units, spring quarter (TOWNLEY)
winter, 6; spring, 5

12. Advanced Practical Astronomy.

A continuation of course 11. Precise methods of determining time, latitude, etc., by means of the universal instrument.

Any quarter (Townley) Hours and Units by arrangement
autumn, 1; winter, 1; spring, 1

13. Adjustment of Observations.

Theory of the method of least squares, with applications. Credit in course 2 or its equivalent is a prerequisite.

3 units, winter quarter (Townley) By arrangement
winter, 4

14. Geodesy.

Study of the form and dimensions of the earth and the practical methods of geodetic work. Courses 11 and 13 are prerequisites.

3 units, autumn quarter (Townley) By arrangement

15. History of Astronomy.

A rapid survey of the progress of astronomy from the time of the Greeks to the present.

3 units, winter quarter (Townley)
winter, 17

15a. Elements of Astronomy.

2 units, winter quarter (Townley)
winter, 16

16. Variable Stars.

Consideration of the different classes of variable stars, methods of observation and construction of light curves. Course 10 is a prerequisite.

3 units, spring quarter (Townley)
spring, 2

BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

Wilfred Hamilton Manwaring, Professor.

William Ludlow Holman, Edwin William Schultz, Associate Professors.

Non-Medical Courses

A. General Bacteriology.

A survey of the field of bacteriology, including pathogenic forms. The course is designed primarily for nurses, teachers, social workers, industrial chemists, and those desiring a general knowledge of the subject. Not open to pre-medical students. Prerequisites: 90 units of university work, including General Biology and Chemistry 10, or equivalents.

6 units, spring quarter (Holman) Lec. MW 8; Quiz F 8; Lab. MWF 9–12
spring, 4

B. Hygiene of Infectious Diseases.

Non-technical lectures in Bacteriology, with special reference to the application of

bacteriologic methods to the prevention and control of infectious diseases. Not open to first-year students.

2 units, spring quarter (HOLMAN) TTh 11
spring, 120

C. Anatomy and Physiology of Disease.

Non-technical lectures in Elementary Pathology, dealing with such topics as: The Nature of Disease, Curative Forces of the Body, Methods of Diagnosis, Methods of Treatment, Popular Remedies, Patent Medicines, etc. Not open to first- and second-year students.

1 unit, autumn quarter (MANWARING) [Not given in 1921–22]

MEDICAL COURSES

1. Bacteriology.—Required medical course.

Prerequisites: 165 units of university work (135 units for department majors), including Anatomy 1, Chemistry 16, *l*, *f*, Physiology 3 and 4, or equivalents.

10 units, autumn quarter (HOLMAN)
autumn, 21 Lec. M 11, WF 1; Lab. MTTh 1–4, WF 2–4

2. Experimental Bacteriology.—Elective medical course.

An advanced course in bacteriologic methods, including the use of animals, special apparatus, etc. Prerequisite: course 1.

2 units, winter quarter (HOLMAN) By arrangement
winter, 5

3. Principles of Immunity.—Elective medical course.

An advanced course of lectures on immunity and serologic methods. Prerequisite: course 1.

2 units, winter quarter (MANWARING) [Not given in 1921–22]

3a. Elementary Serology.—Elective medical course.

A laboratory study of antitoxins, bacteriolysins, hemolysins, agglutinins, precipitins, opsonins, complement deviation, anaphylaxis, etc., designed to accompany course 3.

6 units, winter quarter (MANWARING) [Not given in 1921–22]
3 units, summer quarter (MANWARING)
summer, 1

4. General Pathology (a).—Required medical course.

Continuous with General Pathology (*b*), Division of Pathology, San Francisco. The course is given from the experimental point of view and covers circulatory disturbances, degenerations, pigmentations, acute inflammations, and regenerations. Prerequisite: course 1.

6 units, winter quarter (SCHULTZ) Lec. MW 1; Quiz F 1; Lab. MWF 2–4
winter, 25

5. Histopathologic Technique.—Elective medical course.

2 to 4 units, winter quarter (SCHULTZ) By arrangement
winter, 2

6. Experimental Pathology.—Elective medical course.

An advanced course in General Pathology, dealing with the production and study of typical pathologic lesions in animals, including a study of the literature, and conferences. Prerequisite: course 4.

6 units, spring or summer quarter (SCHULTZ) [Not given in 1921–22]

7a, 7b. Pathologic Physiology.—Elective medical course.
Designed to accompany the introductory course in Physical Diagnosis. Subject matter presented from the experimental point of view. (*a*) Winter Quarter: Cutaneous and mesoblastic sensations, skeletal muscle, circulation, respiration, digestion, and absorption. (*b*) Spring Quarter: Metabolism, internal secretion, heat regulation, excretion, reproduction, special senses, psychical processes.
2 units, winter and spring quarters (MANWARING) [Not given in 1921–22]

8. Experimental Functional Pathology.—Elective medical course.
A series of ten kymograph experiments on dogs; the production and study of typical pathologic physiologic conditions. Prerequisite: course 7*a*.
3 units, spring quarter (MANWARING) [Not given in 1921–22]

9. Protozoölogy.—Elective medical course.
The course includes a study of (1) the biology of protozoa; (2) typical free-living species; (3) species parasitic in animals; (4) species parasitic in man. The chief portion of the course is devoted to the species pathogenic for man; diseases produced by them, and to the prevention and control of protozoan infections. Methods of collecting, cultivating, and preparing for study both free-living and parasitic protozoa are also covered. Prerequisites: 120 units of university work, including Zoology 1, Anatomy 1, Physiology 3, and Chemistry 10, or equivalents.
6 units, spring quarter (SCHULTZ) [Not given in 1921–22]

10. Helminthology.—Elective medical course.
A study of the parasitic worms, with special reference to those pathogenic for man. Prerequisites: same as course 9.
2 units, autumn quarter (SCHULTZ) [Not given in 1921–22]

11a, 11b. Clinical Laboratory Methods.
Elective for department majors. Full-time work in either (*a*) the Bacteriologic, or (*b*) the Clinical laboratories, Lane Hospital, San Francisco. Prerequisites: courses 1, 2, 3, 3*a*, 5, 9, 10. Limited to two students each quarter.
13 units, any quarter (DIVISION OF MEDICINE) Lab. MTWThF 9–12, S 9–12
winter, (2 groups), 2, 1; spring, 2

12. Journal Club.—Elective medical course.
A study of current literature in the subjects covered by the department, with oral or written reports at one or more of the weekly meetings. The work is done under the staff member in charge of the particular field in which the student is interested. Prerequisites: courses 1, 3, 3*a*, 4, and 9.
2 units, autumn, *winter, and *spring quarters (MANWARING, HOLMAN, SCHULTZ) By arrangement
autumn, 10; winter, 6; spring, 5

13. Advanced Work, Medical Thesis, Research.
(*a*) Bacteriology (HOLMAN.)
(*b*) Experimental Pathology, Medical Zoology. (SCHULTZ.)
(*c*) Experimental Functional Pathology, Serology. (MANWARING.)
5 to 10 units, winter, *spring, and *summer quarters By arrangement
autumn (2 groups), 4, 2; winter (2 groups), 6, 1; spring (2 groups), 2, 3; summer, 6

FEES.—Course 1, $30; courses A, 3*a*, 4, and 9, $15 each; courses 6 and 8, $10 each; courses 5 and 10, $5 each. Students pay for breakage and animals used.

Lower Division Prerequisites.—The completion of the following Lower Division courses, or their equivalents: Physics 1*a*, 1*b*, 1*c*; Chemistry 1, 3, 20, *a*, *b*, *d*, *f* (if possible); Botany 1*c* (if possible); Zoology 1 (or General Biology 1, 2, *a*), 11; reading knowledge of French or German.

Recommended Departmental Curriculum. — Third year: Chemistry 7, 8, *e* (or 10), Anatomy 1, Physiology 3, 4, Bacteriology 9, or equivalents. Fourth year: Chemistry 16, *l*, Bacteriology 1, 2, 3, 3*a*, 5, 10, 11, 12, 13, or equivalents. Recommended electives: Chemistry *x* (Water Analysis), Economics 53, 54, 55.

Advanced Degrees.—Applicants for the degree of Master of Arts in Bacteriology and Experimental Pathology will be expected to complete in addition to the requirements for the Bachelor's degree, the equivalent for forty-five units work in the University, of which approximately two-thirds must be in the Department. The departmental work will include a thesis based on laboratory work, and courses 3, 3*a*, 9, 10, and 12, if not included in the undergraduate work.

Candidates for the degree of Doctor of Philosophy in Bacteriology and Experimental Pathology, after the completion of the equivalent of the requirements for the degree of Master of Arts, will follow such courses as are approved by the Department, subject to general University regulations.

BIBLICAL HISTORY AND LITERATURE

David Charles Gardner, Chaplain, Lecturer.
Augustus Taber Murray (Department of Greek).
Henry David Gray (Department of English).

1. English Bible.

Representative portions of the Bible studied as literature. Not open to first-year students. [English 24.]

3 units, autumn quarter (Gray) MWF 10

2. New Testament Literature.

A critical introduction to the literature of the New Testament for general students; no knowledge of Greek is presupposed. Lectures with assigned readings. [Greek 20.]

3 units, autumn quarter (Murray) MWF 9

3. The Religion of the Jew.

A study of Old Testament religion and ethics.

1 unit, autumn quarter (Gardner) Th 11
autumn, 28

4. Life of Christ.

A history of the life and times of Jesus. Lectures, discussions, and papers.

1 unit, winter quarter (GARDNER) Th 11
winter, 33

5. The Ethics of Christ.

An analysis of Christian Ethics as disclosed in the Gospels. The application of Christ's teaching to modern life.

1 unit, spring quarter (GARDNER) Th 11
spring, 17

BIOLOGY

General Biology.

This course attempts to present to beginners by means of lectures, illustrations, demonstrations, and laboratory exercises the fundamentals of Biology in its broadest sense. It includes a study of: (1) Protoplasm, the common living substance of all plants and animals; (2) The organization of cells and their combination into multicellular organisms; (3) The role of green plants in the manufacture of foods; (4) The transformation of foods into the living substance of plants and animals; (5) The liberation and utilization of the chemical energy of foods, chiefly by animals; (6) The sensitivity of protoplasm and its role in correlating the internal processes of the organism on the one hand and relating and adjusting it to its environment on the other; (7) Disease and death of organisms; (8) The enrichment of the soil through the decomposition of organic remains and nitrogen fixation; (9) The perpetuation of the species through reproduction; (10) The laws and mechanism of heredity; (11) Evolution and adaptation of organisms; (12) The factors controlling the ecological and geographical distribution of organisms; and (13) Man's place in nature. No prerequisites, and required of all Lower Division students who do not present a high school equivalent or elect an equal amount of work in one of the biological departments. (See requirements under Biology in Announcement of Lower Division.) Nine units as follows:

1. *Lectures.*

3 units, autumn and *winter quarters (BURLINGAME, DOANE, HEATH, MARTIN, PEIRCE, WILBUR) (autumn) MWF 8; (winter) TThS 8
autumn, 304; winter, 157

2. *Lectures.*

3 units, winter and *spring quarters (ABRAMS, BURLINGAME, FISHER, HEATH, MARTIN, TERMAN, VESTAL, WILBUR) MWF 8
winter, 224; spring, 164

a. Laboratory.

3 units, autumn, *winter, and *spring quarters (VESTAL, ANNAND, BORTHWICK) MWF 1–4; or TTh 1–4 and S 8–11
autumn, 128; winter (2 sections), 63, 64; spring, 49

BOTANY

†Douglas Houghton Campbell, Leroy Abrams, George James Peirce, Professors.
Leonas Lancelot Burlingame, Associate Professor.
James Ira Wilson McMurphy, Assistant Professor.
Lawrence Becking, Instructor.

The Department of Botany aims to provide instruction for two classes of students: (*a*) Students who wish to know something of the structures, life processes, relationships, and uses of plants, and to gain some familiarity with the methods of scientific work; and (*b*) Professional students who look forward to investigation, teaching, or the technical applications of Botany in Plant Breeding, Forestry, Agriculture, Horticulture, Plant Pathology, etc. Courses 1*a*, 1*b*, 1*c*, which present the elements of the more important divisions of botanical study, are designed to meet the needs of both groups of students and must precede all other courses in the department, except in the case of students who have received equivalent credit. Courses 2 to 16 are open to students who have had courses 1*a*, 1*b*, 1*c*, or their equivalent. It is the aim of these courses to give the student, by means of lectures and references to the literature, a general and summary account of the present state of knowledge, and in the laboratory and the field to afford him an opportunity for a personal acquaintance with plants themselves. Students who have had two or more years' work may, after consultation, be registered in courses 17, 18, 19, 20, 21. The resources of the department afford exceptional opportunity for investigation in a number of fields. Properly qualified students desiring to undertake such investigation should register in courses 22, 23, 24, 25, 26, after consultation with the instructor concerned.

Major students in the department will be expected to complete 60 units in the department, and Zoology 1. The sixty units should include courses 1*a*, 1*b*, 1*c*, 2 or 3, 4 or 5, 7 or 8, 10 or 11, and 12 or 13. It is strongly recommended that courses 2, 3, 7, and 8 be taken in the second year.

The Teacher's Recommendation in the University is based on the satisfactory completion of a minimum of two majors, or one major and two minors. A minor in Botany consists of Elementary Botany (course 1*a*, 1*b*, and 1*c*) and one advanced course, chosen from the following: 4, 7, 8, 9, 10, 12, 13, 14, 15. A major must include the fol-

† Absent on leave, 1921–22.

lowing: Elementary Botany (1*a*, 1*b*, 1*c*), General Fungi (4), General Morphology (2, 3, 7, or 8, 9), Systematic Botany (10), Physiology (12 or 13), a total of 35 units.

Students looking to Forestry or Agriculture as a profession should include courses 4, 6, 10, 11, 12, and 13, as part of their preparation, and the following subjects in other departments: elementary physics, chemistry, geology and physiography, zoology, entomology, economics, and applied mathematics. They should also be able to read French and German.

Fees are charged in the various courses approximately sufficient to cover the cost of the perishable materials and syllabus used, as follows: Courses 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 18, 19, 20, 22–26, $3.00 each; courses 4, 5, 6, 12, 13, 16, 21, $5.00 each; 14, $1.00.

1a. Elementary Botany: Morphology.

This course is designed to be a foundation course. It aims to present a comprehensive view of the entire plant kingdom from the lowest to the highest. The individual types studied will be chosen with reference to their suitability to illustrate the larger steps through which plants have passed in the course of evolution. Campbell's "A University Text-Book of Botany" is used as the principal text and should be owned by, or at least be available to, every student. References to other books will be given whenever advisable and such supplementary reference books will be kept on a shelf in the laboratory and will not be permitted to be taken from the room. The hour preceding the lecture on Tuesdays and Thursdays will be spent in the laboratory, in study and conference under supervision.

5 units, autumn quarter (Burlingame, and Assistants)
autumn, 19 Conference TTh 1:05; Lec. TTh 2:05; Lab. MWF 1:05–3:45

1b. Elementary Botany: Systematic.

Study of the fundamental principles of plant relationships, with special reference to the higher plants. Through the study of representative species and supplementary classification, it is intended to acquaint the student with the more important families of flowering plants, and to enable him to determine independently for his own satisfaction the names and relationships of plants arousing his interest.

5 units, winter quarter (Abrams, and Assistants)
winter, 13 Lec., Lab. and Field Work MTWThF 1:05–3:45

1c. Elementary Botany: Anatomy and Physiology.

Study of the structure, mainly of the land plants, with a view to understanding the vital processes of living plants and their relations to man. The laboratory work will be supplemented by field work.

5 units, spring quarter (Peirce, and Assistants)
Lec. TTh 1:05; Lab. MWF 1:05–3:45
5 units, summer quarter (Becking)
spring, 24; summer, 28

2. Fresh-Water Algae.

Lectures, readings, and laboratory work on the morphology and classification of Blue-Green and Green Algae. Prerequisite: Botany 1*a*.

5 units, winter quartr (Becking)
winter, 4

3. Marine Algae.

Lectures, readings, and laboratory work on the morphology and classification of the Brown and Red Algae. This course is a continuation of course 2, but may be taken independently. Prerequisite: Botany 1*a*.

5 units, spring quarter (BECKING)

4. General Fungi.

Lectures and laboratory work on the morphology and classification of Fungi. Prerequisite: Botany 1*a*.

5 units, autumn quarter (MCMURPHY) Lec.-Lab. MTWThF 1:05–3:45
autumn, 5

5. Fleshy Fungi.

Lectures, laboratory, and field work on the fleshy Fungi ordinarily known as mushrooms, toadstools, etc. Prerequisite: Botany 1*a*.

5 units, winter quarter (MCMURPHY) By arrangement
winter, 7

6. Plant Pathology.

Lectures, laboratory, and field work on fungous and other plant diseases. Open only to students who have had course 4 or its equivalent.

5 units, spring quarter (MCMURPHY) By arrangement
spring, 5

7. Bryophytes.

Lectures and laboratory work on the special morphology and classification of the Bryophytes (Mosses). Prerequisite: Botany 1*a*.

5 units, winter quarter (CAMPBELL) [Not given in 1921–22]

8. Pteridophytes.

Lectures and laboratory work on the special morphology and classification of Pteridophytes (Ferns, Horsetails, Club-mosses). This course is a continuation of course 7. Prerequisites: 1*a* and 7.

5 units, spring quarter (CAMPBELL) [Not given in 1921–22]

9. Seed Plants.

Lectures and laboratory work on the general morphology and anatomy of Gymnosperms and Angiosperms. This course is intended to continue and round out the work of courses 2, 3, 4, 7, 8. It aims to give the student an insight into the origin and relationships of the larger groups of Seed Plants through a study of their Morphology, Embryology, and Comparative Anatomy. Prerequisite: courses 1*a* and 7 or 8.

5 units, winter quarter (BURLINGAME) By arrangement

10. Systematic Botany.

Study of the flowering plants with special emphasis on the more complex and difficult groups. In connection with the course a botanical survey of the local flora will be undertaken, in which each student will choose a special problem. Course 1*b* is a prerequisite.

5 units, spring quarter (ABRAMS) By arrangement
spring, 9

11. Geographical Distribution and Forest Botany.

Study of the trees and shrubs, and the principles of geographical distribution which

they illustrate. The laboratory work will be supplemented by work in the field and in the Arboretum.

5 units, autumn quarter (ABRAMS) Lec. T 1:30; Lab. and Field Work MWThF 1:30–4
autumn, 9

12. Experimental Plant Physiology.

The production and use of food. Lectures, laboratory work, and reading. Prerequisite: 1*c* or its equivalent. Knowledge of the elements of physics and chemistry is essential.

5 units, autumn quarter (PEIRCE) Lec. TTh 9; MWF 8–10
autumn, 11

13. Experimental Plant Physiology.

The reactions of plants to the environment. Lectures, laboratory work, and reading. Prerequisite: 1*c* or its equivalent. Knowledge of the elements of physics and chemistry is essential.

5 units, winter quarter (PEIRCE) Lec. TTh 9; Lab. MWF 8–10
winter, 13

14. Genetics.

Lectures on Inheritance in plants, animals, and man. Prerequisite: Botany 1, Zoology 1 or General Biology.

3 units, spring quarter (BURLINGAME) MFW 10
spring, 46

15. Plant Breeding.

Garden and laboratory work illustrative of the principles and practices underlying modern practice in the propagation and improvement of plants. Prerequisites: Botany 1*a*, Zoology 1 or General Biology, Botany 14.

2 units, spring quarter (BURLINGAME)
spring, 1

16. Cytology and Technique.

1. Lectures on the structures and functions of the cell, with special reference to the mechanism of inheritance and the practical consequences thereof in plant breeding. 2. Laboratory exercises in (*a*) histological and cytological technique (killing and fixing, embedding, sectioning, staining, etc.), (*b*) study of selected slides illustrating the lecture topics, mitosis, gametogenesis, sporogenesis, etc.

5 units, winter quarter (BURLINGAME) By arrangement
winter, 4; spring, 3

17. Advanced Plant Pathology.

Field and laboratory work on special diseases.

(MCMURPHY) Hours and credit by arrangement

18. Advanced Archegoniates.

This course offers opportunity for individual students to continue (along lines of special interest) the work begun in course 7 or 8. Prerequisites: Elementary Botany and course 7 or 8 or equivalents.

(CAMPBELL) [Not given in 1921–22]

19. Advanced Systematic Botany.

Special problems in taxonomy and geographical distribution, with reference to methods of investigation. This course is intended primarily as preliminary training for research work in taxonomic botany.

(ABRAMS) Hours and credit by arrangement
autumn, 3; winter, 3; spring, 3

20. Problems in Genetics and Plant Breeding.

This course offers an opportunity to continue advanced work along the lines of course 15.

Any quarter — (Burlingame) By arrangement
autumn, 1; winter, 1; spring, 6

21. Advanced Physiology.

Experimental study of a single problem by one or more individuals. Prerequisites: Elementary Botany and courses 12 and 13, or their equivalents.

(Peirce, Becking) By arrangement
autumn, 1; winter, 3; spring, 2

22. Research in Morphology.

Students desiring to do original investigation in morphology must have had adequate training in the appropriate special morphology courses or their equivalents.

(Campbell) [Not given in 1921–22]

23. Research in Plant Pathology.

(McMurphy) By arrangement

24. Research in Taxonomy and Geographical Distribution.

(Abrams) By arrangement
autumn, 2; winter, 2; spring 1

25. Research in Cytology and Genetics.

For students who wish to undertake original work in genetics or cytology. Prerequisites are an adequate training in general botany and such special courses as the nature of the work makes necessary.

Any quarter (Burlingame) By arrangement
autumn, 1; winter, 1; spring, 1

26. Research in Physiology.

(Peirce, Becking) By arrangement
winter, 1; spring, 4

27. Seminar.

For the purpose of presenting original work and reviewing the work of others.

1 unit, every quarter (The Staff)
spring, 15 One afternoon or evening meeting each week

CHEMISTRY

John Maxson Stillman, Professor Emeritus.

Robert Eckles Swain, Edward Curtis Franklin, Lionel Remond Lenox, John Pearce Mitchell, Stewart Woodford Young, Professors.

Albert Frederick Ottomar Germann, William Henry Sloan, Assistant Professors.

Florian A. Cajori, Charles Doak Lowry, Jr., George Sutton Parks, Norris Watson Rakestraw, John Russell, Instructors.

Alanson Wood McDermoth, Robert Nicolas Wenzel, Teaching Fellows.

I. Lecture Courses

1. General Inorganic Chemistry.

Comprising a systematic treatment of elementary principles and of the properties of the more important elements and their compounds. Open to all students. Three lectures and one recitation period each week. Students with entrance credit in Chemistry are excused from the recitation period. Students without entrance credit in Chemistry are required to enroll in laboratory course *a* concurrently.

3 units, autumn and winter quarters (Mitchell, Germann, Rakestraw) (autumn) Lec. MWF 8, Rec. F 10; (winter) Lec. TThS 8, Rec. F 10
autumn (2 sections), 43, 166; winter, 77

3. General Inorganic Chemistry.

Continuation of Chemistry 1. Open to students who have had courses 1 and *a*, or their equivalents. (Entrance credit in Chemistry is equivalent to course *a*.)

3 units, winter and spring quarters (winter, Mitchell) MWF 8; (spring, Germann) TThS 8
winter, 122; spring, 93

4. General Inorganic Chemistry.

Combination of Chemistry 1 and 3. Open to all students in the summer quarter who have entrance credit in Chemistry.

4 units, summer quarter (Germann) MTWThFS 8
summer, 24

5. Principles of Inorganic Chemistry.

Discussion of the elements of chemical theories and of important generalizations in the field of inorganic chemistry. Prerequisite: Chemistry 3 or 4, or an equivalent.

4 units, autumn quarter (Swain) MTWF 11
autumn, 25

6. Principles of Inorganic Chemistry.

A continuation of Chemistry 5, although the treatment is such as to make it possible for students to take this course in advance of Chemistry 5. Work based largely on the periodic classification of the elements, including a discussion of atomic structure, and radioactivity. Prerequisite: Chemistry 3 or 4, or their equivalent.

4 units, spring quarter (Swain) MTWF 11
spring, 27

7. Organic Chemistry.

Lectures and reviews on the chemistry of carbon compounds. Open to students who have completed courses 5 and 6 or their equivalent.

5 units, autumn quarter (Franklin) MTWThF 10
autumn, 40

8. Organic Chemistry.—Continuation of Chemistry 7.

5 units, winter quarter (Franklin) MTWThF 10
winter, 41

9. Advanced Organic.

Advanced topics in organic chemistry, including stereochemistry. Open to students who have completed courses 5–6, and 7–8. [Given in 1921–22.]

3 units, spring quarter in alternate years (Franklin) MWF 8
spring, 45

10. Elementary Organic Chemistry.

A condensed course in organic chemistry is offered particularly for students in

medicine, but open to all students who have completed course *d*. Brief course, not for Chemistry majors.

5 units, spring and *summer quarters (LOWRY) (spring) MTWThF 8
spring, 32; summer, 10 (summer) MTWThF 10

11. Chemical Calculations.

Consists of a series of problems designed to review the fundamental principles of analytical and theoretical chemistry. Open to juniors and seniors who have had courses, 5, 6, and *f*. A series of more advanced problems will be given by arrangement.

3 units, spring quarter (MITCHELL) MWF 8
autumn, 1; spring, 16

13. General Physical Chemistry.

Lectures covering as far as possible the whole field of physical chemistry. Open to students who have completed Chemistry 5, 6, 7, 8, and *f*, course 7 or 5 in Mathematics, and courses 1*a*, 1*b*, 1*c*, in Physics, or their equivalent.

5 units, autumn quarter (YOUNG) MTWThF 8
autumn, 49

14. General Physical Chemistry.—Continuation of Chemistry 13.

5 units, winter quarter (YOUNG) MTWThF 8
winter, 50

15. Electro-Chemistry.

Discussion of the general theories and applications of electro-chemistry. Open to seniors in Chemistry, and to others who have completed courses 13 and 14, or their equivalent.

3 units, spring quarter (PARKS) MWF 11
spring, 13

16. Physiological Chemistry.

Lectures on the chemical composition and action of the tissues and secretions of the animal body, the digestion of foods, and the elimination of waste products. Open to students who have completed courses 7 and 8, or 10.

5 units, autumn and *summer quarters (SWAIN, CAJORI) MTWThF 8
autumn, 47; summer, 25

17. Seminary in Chemistry.

Discussion of assigned topics in theoretical and general chemistry. Open to graduate students, and to advanced undergraduates in Chemistry, with the approval of the Faculty in Chemistry.

1 unit, every quarter (FRANKLIN, SWAIN, GERMANN) W 4
autumn, 33; winter, 42; spring, 46; summer, 20

18. Chemistry of Nutrition.

2 units, winter quarter (ALSBERG) TTh 11
winter, 54

20. Qualitative Analysis.

Lecture course in connection with laboratory course *d*. Open to students who have completed courses 3 or 4, and *b* or *c*.

1 unit, autumn, *winter, and *spring quarters (LENOX) TTh 1:05
autumn, 29; winter, 25; spring, 36

21. Quantitative Analysis.

Lecture course. Must be taken in conjunction with course *f*.

1 unit, autumn, *winter, and *summer quarters (Sloan, Russell) TTh 1:05
autumn, 16; winter, 9; spring, 11; summer, 2

22. Quantitative Analysis.

Lecture course. Must be taken in conjunction with course *g*.

1 unit, autumn, *winter, and *summer quarters (Sloan) WF 1:05
autumn, 9; winter, 23; summer, 4

II. Laboratory Courses

a. Elementary Inorganic Chemistry.

In connection with course 1. Illustrating fundamental laws and principles of elementary chemistry. Required of students who have not received entrance credit in Chemistry.

3 units, autumn and *winter quarters (Mitchell, Germann, Rakestraw, Wenzel) MTW 1–4, or ThF 1–4, and S 9–12
autumn, 42; winter, 20

b. General Inorganic Chemistry.

Inorganic preparations and general chemistry. For students with entrance credit or Chemistry *a*.

3 units, every quarter (Mitchell, Germann, Rakestraw, Wenzel) MTW 1–4, or ThF 1–4, and S 9–12
autumn, 68; winter (2 sections), 36, 41; spring, 40; summer, 21

c. General Inorganic Chemistry.

Combination of *a* and *b*. Open to all students in the summer quarter.

5 units, summer quarter (Rakestraw, Wenzel) 5 afternoons

d. Qualitative Analysis.

Open to students who have completed courses 3 or 4, and *b* or *c*. Given in conjunction with course 20.

5 units, autumn, *winter, and *spring quarters (Lenox, Berger, McDermoth) 5 afternoons
autumn, 29; winter, 25; spring, 36

e. Organic Preparations.

Preparation of typical carbon compounds. Open in connection with courses 7 and 8 to students who have completed course *d*.

5 units, winter, *spring, and *summer quarters (Franklin, Lowry)
winter, 15; spring, 17; summer, 4 5 afternoons

f. Quantitative Analysis.

Introductory. Training in manipulation in gravimetric and volumetric methods. Open to students who have completed course *d*. First-year students are admitted to this course only in case they have completed course 5, in addition to *d*. Given in conjunction with course 21.

5 units, autumn, *winter, *spring, and *summer quarters (Sloan, Russell)
autumn, 14; winter, 9; spring, 14; summer, 1 5 afternoons

g. Quantitative Analysis.

An introductory course in quantitative methods with emphasis on volumetric work. Not open to chemistry majors. Given in conjunction with course 22. Same prerequisites as course *f*.

4 units, autumn, *winter, and *summer quarters (Sloan, Russell)
autumn, 8; winter, 20; summer, 4 4 afternoons

h. Quantitative Analysis.

A continuation of course *f*, principally gravimetric methods.

5 units, autumn, *winter, and *summer quarters (Sloan, Russell)
autumn, 16; winter, 6; summer, 1 5 afternoons

i. Advanced Quantitative Analysis.

Systematic mineral analysis and volumetric assays of ores of copper, lead, zinc, iron, and manganese. Iron and steel analysis and the analysis of ferro-alloys. Open to students who have completed courses *f* and *h* and required of all students registering in division B (Analytical Chemistry).

Students majoring in other departments, who have completed course *f* in Chemistry, may register for three units of work in this course, covering the volumetric portion only.

3 or 5 units, spring quarter (Lenox, Berger) [Not given in 1921–22]

k. Physical-Chemistry Measurements.

Exercises in the practice of physical-chemical laboratory methods. Open to students who have completed or are taking courses 13–14, and who have completed courses 7, 8, *e*, and *f*. In special cases and by special arrangement this course will be open to students who have completed courses 7, 8, *e*, and *f*, but have omitted courses 13–14.

5 units, every quarter (Young, Parks) 5 afternoons
autumn, 4; winter, 9; spring, 4

l. Biochemistry.

A laboratory course including a preliminary study of the proteins, carbohydrates, and fats, and the action of the various digestive fluids upon them; followed by a chemical examination of the bile, blood, milk, the chief tissues of the animal body, and the excretions. The latter half of the course is devoted to quantitative analytical methods. In connection with course 16.

4 or 5 units, autumn and *summer quarters (Swain, Cajori)
autumn, 40; summer, 17 4 or 5 afternoons

x. Advanced and Special Courses.

Advanced and Special Courses in laboratory work and research work are open to students who have completed the necessary prerequisites, by arrangement with professors of the department, and with reference to the particular aims and ambitions of the students. Such advanced or special subjects are, for example: special methods in mineral analysis; water analysis; biochemical methods; elementary organic analysis; special organic preparations.

autumn (4 groups), 6, 5, 4, 7; winter (6 groups), 11, 11, 4, 2, 2, 3; spring (7 groups), 5, 9, 5, 4, 6, 14, 1; summer (8 groups), 2, 5, 1, 6, 1, 1, 1, 4

Candidates for the degree of Bachelor of Arts in Chemistry must offer the equivalent of two years of college work in German, or two years of French and one year of German. The election of German in the Lower Division is advised for those who have not had the equivalent of two years of college work in the subject. A good reading knowledge of German is required for all advanced degrees.

Major students should complete the courses in one of the following curricula (A, B, C, or D) in meeting the requirements for the degree of Bachelor of Arts in Chemistry.

Qualified students may also pursue investigations of problems in

inorganic, organic, physical, analytical, or physiological chemistry under the direction of any professor with whom arrangement is made.

For all such advanced, special, or research work, students will register and enroll under *x*, giving the name of the professor under whom the work is to be carried on, and for such number of units of credit as may be agreed upon.

Students intending to major in the Department of Chemistry are advised to offer entrance credit in chemistry, physics, mathematics (including solid geometry and trigonometry for the chemical engineering course), and German (2 units). Entrance credit in biological science will also be advantageous. Students without these entrance credits may experience some difficulty, especially in the chemical engineering course, in conforming to the Departmental requirements for graduation. Consult also the *Registration Manual for the Lower Division.*

A. General Chemistry

(Recommended for all who are studying the science of chemistry particularly as a basis for teaching or scientific research.)

First and Second Years—Lower Division requirements, including Chemistry 1, 3, (*a*), *b*, 20, *d*; Physics 1*a*, 1*b*, 1*c*; Mathematics 7, or its equivalent; and German or French.

Third and Fourth Years—Chemistry 5, 6, 7, 8, 13, 14, 21, *e*, *f*, *k* or *x*.

B. Analytical Chemistry

(Particularly adapted to meet the needs of students who are looking forward to the career of analytical chemist.)

First and Second Years—Lower Division requirements, including Chemistry 1, 3, (*a*), *b*, 20, *d*; Physics 1*a*, 1*b*, 1*c*; Mathematics 7, or its equivalent; and German or French.

Third and Fourth Years—Chemistry 5, 6, 7, 8, 13, 14, 21, *e*, *f*, *h*, *i*, *k* or *x*; Mineralogy 1.

C. Biological Chemistry

(Particularly adapted to students who are looking forward to work along medical or biochemical lines.)

First and Second Years—Lower Division requirements, including Chemistry 1, 3, (*a*), *b*, 20, *d*; Physics 1*a*, 1*b*, 1*c*; Mathemaics 7, or its equivalent; and German or French.

Third and Fourth Years—Chemistry 5, 6, 7, 8, 16, 21, *e*, *f*, *l*, *k or x*; Physiology 2; Bacteriology A or 1.

D. Chemical Engineering

(Intended especially for students who are working toward the degree of Engineer in Chemical Engineering, and who desire to fit themselves for positions of responsibility

in connection with the administration of industries involving chemical knowledge and skill.)

This curriculum comprises four years of the necessary six years' work leading to the advanced degree of Engineer in Chemical Engineering. Candidates in this course receive the degree of A. B. in Chemistry, upon completion of the following requirements:

First and Second Years—Lower Division requirements, including Chemistry 1, 3, (*a*), *b*, 20, *d*; Physics 2*a*, 2*b*, 2*c*; Applied Mathematics 1*a*, 1*b*, 2*a*; Engineering 1, 2.

Third and Fourth Years—Chemistry 5, 6, 7, 8, 13, 14, 21, *e*, *f*, *h*; Applied Mathematics 2*b*, 3*a*, 3*b*; Engineering 3, 10, 11, 12; Mechanical Engineering 12.

Advanced Degrees

After October 1, 1926, candidates for the degree of Engineer in Chemical Engineering will be required to complete two years of graduate work in addition to the above requirements for the A. B. degree as given under Curriculum D. This work will include a thesis based on laboratory work and the following courses: Chemistry 9, 17, *k*; Mechanical Engineering 21, 23, 32, 33, 36; Electrical Engineering 2, 3, 22, 23. A reading knowledge of both German and French will also be required.

Prior to October 1, 1926, this degree will be awarded upon the completion, in addition to the requirements for the A. B. degree in Chemical Engineering, of three quarters of graduate work, which shall include the following courses: Chemistry *k*, Mechanical Engineering 21, 23, 36, and a thesis based on laboratory work.

Applicants for the degree of Master of Arts in Chemistry will be expected to complete, in addition to the requirements for the Bachelor's degree, the equivalent of forty-five units of work in the University—of which approximately two-thirds must be in the department. This work will include a thesis based on laboratory work, and courses 13, 14, and *k*, if these were not included in the undergraduate work.

Candidates for the degree of Doctor of Philosophy in Chemistry, after the completion of the equivalent of the requirements for the degree of Master of Arts or Engineer, will follow such courses as are approved by the department faculty, subject to general University regulations.

The Teacher's Recommendation.—The minimum requirements for the high school teacher's recommendation in Chemistry are as follows:

a. To teach chemistry as a minor high school subject: Courses 1–3 or 4, *b* (General Inorganic lectures and laboratory); 20, *d* (Qualitative Analysis); 5, 6 (Principles of Chemistry); and either 7 or 10 (Organic Chemistry). Total, 27 units.

b. To teach chemistry as a major high school subject: Courses 1–3 or 4, *b* (General Inorganic lectures and laboratory); 20, *d* (Qualitative Analysis); 21, *f* (Quantitative Analysis); 5, 6 (Principles of Chemistry); 7, 8 (Organic Chemistry). Total, 37 units.

Laboratory Fees.—A charge of $25 per quarter ($10 of which is returnable less bills for breakage and loss of apparatus) is made to students in courses *a*, *b*, and *c*; for three units credit in Chemistry *i* or *x* the fee is $20 per quarter (with $10 returnable less breakage); for all other courses of not more than six units credit the fee is $30 per quarter (of which $15 is returnable less bill for breakage and loss of apparatus).

ECONOMICS

Murray Shipley Wildman, Walter Greenwood Beach, Eliot Jones, Albert Conser Whitaker, Professors.
Eliot Grinnell Mears, Acting Professor.
Harley L. Lutz, Acting Professor (Summer Quarter).
Alonzo Englebert Taylor, Director of Food Research.
John Bennet Canning, Assistant Professor.
Margaret Mulford Lothrop, Nathaniel Sanders, Instructors.
Francis W. Hirst, Lecturer.
Clinton Fisk Wells, Susan Sophia Burr, Edward Hasbrouck Van Winkle, Assistants.

The courses offered in this department are not confined to the subject of Economics as properly defined, but include a number of topics often given in departments of sociology and schools of commerce. In the conduct of all the courses, however, the economic factors are emphasized and their importance to our social institutions is developed. The primary purpose of the instruction is to discover the elements of sound public policy rather than to train for a vocation in the narrower sense.

Graduation.—To arrange a program of study leading to the degree of Bachelor of Arts in Economics a student should consult with his departmental adviser in order that his program of work may be adapted to his special needs or interests. In making such a program at least a fourth of the required 180 units should be selected from courses offered in this department, and at least a third of these should be advanced courses.

In addition to courses given in this department, certain others offered in Political Science, History, Law, and Philosophy, will be found helpful and should be included in the student's program.

Course 1 (Economic Problems) and course 51 (Principles of Economics) are required of all candidates for graduation in Economics.

Students, majors in this department, who desire to prepare for journalism are referred to the announcement on page 190.

TEACHER'S CERTIFICATE.—To obtain a teacher's certificate, with the major subject in this department, a student will be required to secure credit for 45 units of work in Economics. For a certificate with a minor in this department, credit for 25 units is required.

COURSES OPEN TO LOWER DIVISION STUDENTS

1. Economic Problems (Citizenship).

This is an elementary study of problems involving the production, exchange, and use of wealth. An attempt will be made to give the student an approach to the economic issues of the day with an intelligent appreciation of the factors which make for sound public policy. Primarily for first-year students.

4 units, autumn, *winter, *spring, and *summer quarters (WILDMAN, JONES) MTWTh 10
autumn, 254; winter, 230; spring, 127; summer, 67

2. Social Problems (Citizenship).

This is an elementary study of the problems that arise out of the relations of people to each other as these relations express themselves in such important institutions as the family, state, and church. It will be the purpose of the course to give the student criteria for intelligent criticism of legislation and practice. Primarily for first-year students.

4 units, autumn, *winter, and *spring quarters (BEACH) MTWTh 10
autumn, 242; winter, 252; spring, 234

3. Elementary Accounting.

Development of accounting; theory of debit and credit; bookkeeping forms and practice; preparation of balance sheets and their interpretation; application of theory and principle to simple systems of accounts; practical accounting problems. No prerequisites. This course should be taken by students expecting to enter courses 20 and 59.

3 units, autumn, *winter, *spring, and *summer quarters (WELLS, VAN WINKLE) MWF 8, 11; TThS 8
autumn, 68; winter (2 sections), 37, 33; spring (3 sections), 26, 40, 28; summer, 14

4. Elements of Economics.

A general and introductory course for third- and fourth-year students from other departments. This course is not adapted to majors in economics.

3 units, autumn quarter (LOTHROP) MWF 10
autumn, 46

5. Railway Transportation.

Historical account of railroad transportation; development of railroad systems; state and federal legislation; decisions of the commissions and of the courts; government ownership and operation. Prerequisite: course 1. Not open to first-year students.

5 units, autumn quarter (JONES) MTWThF 8
autumn, 136

6. Introduction to Statistics.

A study of elementary statistical methods appropriate for dealing with problems in the social sciences and business. Emphasis will be given to the critical examination of data, to the defining of statistical units, to the theory of classification, to the properties and appropriate uses of the commoner averages and to the determination and interpretation of index numbers.

4 units, spring quarter (CANNING) MTWTh 9
spring, 23

7. Financial History of the United States.

A general historical survey of the financial policy of the national government with especial emphasis on the Revolution, Civil War, and recent periods. The subject matter of the course includes the tariff, the internal revenue system, public finances in time of war, the public land policy, the growth of public expenditures, management of the public debt, and treasury administration.

4 units, spring and *summer quarters (BURR, LUTZ)
spring, 50; summer, 49 (spring) MTWTh 11, (summer) MTWTh 9

8. Economic Resources of the United States.

A lecture and reading course on the economic resources of the United States, with some attention to the problems of conservation and public control. This course should be taken as prerequisite to course 66.

4 units, winter quarter (MEARS) MTWTh 11
winter, 133

10. Accountancy of Investment.

Methods of valuing income-bearing properties and securities on the basis of a rate of interest, and of finding the rate of interest yielded on investments. Depreciation and sinking funds. The student's work will consist largely in the solution of assigned problems. Advanced mathematics not required.

4 units, autumn, and *spring quarters (WHITAKER) MTWTh 11
autumn, 83; spring, 84

INTERMEDIATE COURSES

[The following courses are primarily for students who have more than forty units of university credit.]

20. Corporation and Trust Finance.

Elementary survey of corporation law; the organization and management of corporations and combinations; the corporation's securities, stocks and bonds, and their classification; the stock market and stock speculation; capitalization, surplus, reserve, and financial policy; the provision of new capital; promotion, underwriting, receiverships and reorganization.

4 units, spring and *summer quarters (WHITAKER)
spring, 138; summer, 57 (spring) MTWTh 10, (summer) MTWTh 11

21. Public Finance.

A general course dealing with the history and theory of public expenditures, national, state, and local budgets, methods of securing efficiency in the disbursements of public moneys, public debts, and war finance.

4 units, winter and *summer quarters (BURR, LUTZ)
winter, 46; summer, 26 (winter) MTWTh 10, (summer) MTWTh 8

22. Labor Problems.

A general course. The topics considered include the following: the rise of the

wage-earning class, the industrial revolution, unemployment, woman and child labor, wages, and collective bargaining.

3 units, winter quarter (BEACH) MWF 9
winter, 124

24. Economics and the Home.

The problems of the household as a factor in the consumption of wealth. Not open to first-year students.

3 units, winter quarter (LOTHROP) MWF 9
winter, 12

26. Money and Credits.

The elements of monetary theory; the laws of coinage, legal tender, and credit; the standard of value, price movements and their relation to prosperity.

3 units, autumn quarter (WILDMAN) MWF 8
autumn, 106

27. Insurance.

The social and individual problems of economic insecurity; the development of forms of insurance to deal with them; outlines of the principles of the major commercial branches of insurance; problems of state control and participation.

4 units, autumn quarter (CANNING) MTWTh 9
autumn, 58

28. Foreign Trade.

International significance; organization of the import trade and the export trade; value and use of statistics; methods employed by leading national competitors; government aid to foreign commerce.

4 units, spring quarter (MEARS) MTWTh 9
spring, 110

29. Intermediate Accounting.

The principles of accounting common to all systems of accounts in acquisitive enterprise, developed by discussion of the information needed by the various interested persons, e. g., the stockholder, the director, the manager, the creditor, etc. Problems illustrative of theory of accountancy and problems of interpreting financial statements constitute a major portion of the work. Prerequisite: course 3 or its equivalent. Limited to forty.

4 units, autumn quarter (CANNING) MTWTh 11
autumn, 22

30. Water Transportation.

Historical account of ocean transportation; decline of the American merchant marine engaged in foreign trade explained; necessity of a merchant marine considered; means of establishing a merchant marine analyzed; experience of foreign nations; combination movement in shipping and shipbuilding in United States; Panama Canal; effect of the war; federal legislation; future of American merchant marine. Not open to first-year students.

4 units, spring quarter (JONES) [Not given in 1921–22]

31. Accountancy of Industrial Management.

The general theory of opportunity cost outlined; the needs of the purchasing agent, the employment manager, and the production manager for highly specialized statistical information analyzed; the relation of manufacturing costs to price making and to commercial credit considered; and the relationships of management accounts and proprietary or financial accounts explained. Course 3 or equivalent is a prerequisite.

Prior credit for course 29 or equivalent is recommended. Students who received credit for Business Administration in the autumn of 1920 will be given only half credit for this course.

4 units, spring quarter (CANNING) MTWTh 10
spring, 9

(Business Law.—See course 49 in the Law School.)

ADVANCED AND GRADUATE COURSES

[The courses which follow are not open to any students with less than 80 units of university credit.]

50. Railway Problems.

A study, from the viewpoint of public policy, of the problems that arise in connection with government regulation and government ownership. Prerequisite; course 5.

2 units, winter quarter (JONES) MW 8
winter, 50

51. Principles of Economics.

A review of the principles of economics. Required of economics majors and open only to them and to graduate students of other departments.

4 units, autumn and *spring quarters (JONES)
autumn, 64; spring, 56 (autumn) MTWTh 9, (spring) MTWTh 8

52. Banking.

The organization of American credit institutions under the Federal Reserve Act, and a comparison between American and European practice.

3 units, summer quarter (WILDMAN) MWF 8
summer, 41

53. Problems of Poverty.

A study of the factors causing poverty, crime, disease, and mental defectiveness, as evidences of social maladjustment; a survey of the possible means of prevention and of the social agencies attempting such work, with special reference to California. Trips of inspection will be included.

4 units, summer quarter (LOTHROP) MTWTh 11
summer, 23

54. Care of Dependents.

A study of the problems of the care of dependents and defectives in institutions and in their homes, with special reference to conditions in California. Three trips of inspection will be required.

4 units, autumn quarter (LOTHROP) MTWTh 11
autumn, 46

55. Crime as a Social Problem.

A study of the problems of crime: the criminal and his characteristics, the treatment of the criminal, the causes and the prevention of crime, with special reference to conditions in California. Three trips of inspection of institutions will be required.

4 units, winter quarter (LOTHROP) MTWTh 11
winter, 66

56. Foreign Exchanges.

A study of the sytsem of settling international indebtedness; principles and practice

of exchange banking; money markets of the world and their relations. Domestic exchange will also be considered.

4 units, autumn and *summer quarters (WHITAKER) MTWTh 10
autumn, 71; summer, 34

57. Railway Administration.

A study, from the viewpoint of the railroad executive, of railway organization, operation, traffic, finance, accounts, and rates. Prerequisite: course 5. Best preceded by courses 3 and 20.

2 units, winter quarter (JONES) TTh 8
winter, 55

58. Investments.

A study of the issues of national, state, and municipal governments, of railway, industrial, and irrigation companies from the investor's point of view, and the organization and methods of bond and brokerage houses.

3 units, spring quarter (WILDMAN) MWF 8
spring, 146

59. Advanced Accounting.

The course recognizes two classes of students: (1) those who intend to become professional accountants; (2) those who have chosen a future occupation and desire a knowledge of its accounting problems. The work will be developed in a series of problems in various specialized systems of accounts. An effort will be made to accommodate the subject matter to the needs of the class. Prerequisite: course 29 or its equivalent.

4 units, winter quarter (CANNING) MTWTh 9
winter, 32

59a. Interpretation of Accounting Reports.

A discussion of the balance sheet and of the income and expense statement from the points of view of the commercial creditor (chiefly the banker) and of the bondholder. Prerequisite: courses 3 and 29 or their equivalent.

2 units, winter quarter (CANNING) [Not given in 1921–22]

59b. Seminar in Accountancy.

Special problems in the theory and practice of accounts. Prerequisite: consent of the instructor.

autumn and *spring quarters (CANNING) By arrangement
autumn, 7; spring, 22

60. Valuation.

The valuation of the properties of public service companies for the purposes of the regulation of rates, with an introductory study of relevant parts of the theory of value and of interest. Courses 10 and 20 should precede course 60.

4 units, winter quarter (WHITAKER) [Not given in 1921–22]

61. Introduction to Auditing.

Training for three classes of students is contemplated: (1) those who intend to become professional accountants; (2) those who intend to become secretaries to managers of business enterprises; and (3) those whose future work as bankers, credit managers, investors, etc., will involve frequent interpretation of the accounts and accounting documents of others. Purposes of audits, kinds of audits, processes of auditing, auditors' reports, and the legal and ethical duties of auditors to clients and to the public will be discussed. Practice work in auditing of the accounts of

fraternity house managers, student publication managers, local merchants, etc., will be sought. Prerequisites: courses 3 and 29, and consent of the instructor.

4 units, winter quarter (CANNING) MTWTh 11
winter, 11

62. Psychological Aspects of Sociology.

This course is a study of the organization of society from the point of view of mental inter-relationships of society and the individual. Problems of association, leadership, conflict, coöperation, the formation of public opinion, and social progress will be considered. An elementary knowledge of sociology and psychology is assumed.

3 units, autumn quarter (BEACH) MWF 9
autumn, 51

63. Immigration.

A general introduction to the study of immigration, but with special reference to the composition of the American population and to the economic and social problems involved in the mingling of peoples, of standards, and of cultures in the United States.

3 units, spring quarter (BEACH) MWF 9
spring, 59

64. Problems of Child Welfare.

2 units, summer quarter (LOTHROP) TTh 9
summer, 5

64a. Europe After the War.

A course of lectures dealing with financial conditions in Great Britain and Europe, or the political economy of war with special reference to its after effects on credit, taxation, trade, currency, and prices.

2 units, autumn quarter (HIRST) MWF 3:05
autumn, 52

65. Teachers' Course.

Designed for students preparing to teach the commercial subjects. Discussion of the methods of teaching shorthand, typewriting, bookkeeping, and kindred commercial branches. Lectures, discussions, and demonstrations. Credit for this course is not accepted in fulfillment of the departmental requirements for graduation, but may count as part of the university requirement for the degree. Prerequisites: Economics AI, AII, AIII, and 3, or their equivalent.

3 units, autumn and *winter quarters (SANDERS) T 1–3, Th 1–2
autumn, 6; winter, 9

66. Marketing.

An analysis of the fundamental problems involved in the distribution of commodities from producers to consumers; the functions assumed by various agencies; the features peculiarly applicable to raw materials and foodstuffs, and to manufactured products; coöperative marketing systems, notably the producer type developed in California.

4 units, winter and *spring quarters (MEARS)
winter, 54; spring, 46 (winter) MTWTh 10, (spring) MTWTh 11

67. Introduction to Social Investigation.

A study of the different methods of social investigation; the collection, preparation and presentation of data, including the simpler problems of statistics and graphic presentation.

autumn and *summer quarters (LOTHROP) By arrangement
autumn, 4; winter, 1; summer, 3

67a. Seminar in Social Investigation.

Practical experience in some small investigation. Open only to seniors and graduates who have taken Economics 67 (Introduction to Social Investigation). (Combined with course 67 during 1921–22.)

autumn and *summer quarters (Lothrop) By arrangement

68. Seminar in Labor.

This seminar is designed for advanced students.

autumn quarter (Beach) By arrangement
autumn, 9

68a. Seminar in Social Research.

winter, spring, and summer quarters (Beach) By arrangement
winter, 13; spring, 4; summer, 3

69. Seminar in Transportation.

This seminar is designed for advanced students.

spring quarter (Jones) By arrangement
spring, 12

70. Graduate Seminar.

Open only to candidates for higher degrees and members of the department.

autumn, winter, and spring quarters (Wildman) By arrangement
autumn, 12; winter (2 groups), 1, 1; spring, 10

75. Food Resources of the World.

A consideration of the factors that compel or permit of production and distribution.

3 units, spring quarter (Taylor) MWF 11
spring, 57

AI. Secretarial Training.

This course offers training in stenography and typewriting supplemented by instruction in the form, arrangement, and the general mechanical make-up of the business letter. It is open to a limited number of students from all departments in the order of their application. Credit for any of the courses in secretarial training is not accepted in fulfillment of the departmental requirements for graduation, but may count as part of the university requirement for the degree. Four hours' instruction a week in stenography and three in typewriting.

4 units, autumn, *winter, *spring, and *summer quarters (Sanders) (autumn) TWThF 9, (winter) TWThF 8, (spring) MTWTh 11, (summer) TWThF 9
(3 units) autumn, 27; winter, 29; spring, 18; summer, 7
(1 unit) autumn, 21; winter, 36; spring, 41; summer, 9

AII. Secretarial Training.

Development of speed with accuracy on the typewriter coupled with ability to take stenographic dictation at the rate of 80 words a minute. Discussion of special problems in commercial correspondence and in office management. Open to those who have completed AI or its equivalent.

4 units, *winter, *spring, and *summer quarters (Sanders) (winter) TWThF 9, (spring) TWThF 8, (summer) MTWTh 11
(3 units) winter, 22; spring, 17; summer, 12
(1 unit) winter, 33; spring, 21; summer, 7

AIII. Secretarial Training.

Special emphasis will be laid on further development of typewriter speed and on transcript work. In stenography the student should be able to take dictation at the rate of 110 words a minute. A study will be made of the duties and responsibilities

of a secretary and the ethics of business. Open to those who have completed course AII or its equivalent.

4 units, autumn, *spring, and *summer quarters (SANDERS) By arrangement
(*3 units*) *autumn, 4; spring, 13*
(*1 unit*) *autumn, 5; spring, 13*

EDUCATION

SCHOOL OF EDUCATION

The purpose of the School of Education is to enable the University to meet the legitimate demands of the State in the matter of the preparation, training, and certification of teachers and school officers. The faculty of the School is composed of the faculty of the Department of Education, together with representatives from other departments concerned with the preparation of teachers for the intermediate and secondary schools; and the faculty of the School has outlined courses for preparation in both majors and minors which will lead to certification as teachers. A special announcement of the School, giving details as to its organization, requirements, and programs of study, will be mailed on request.

Of this School, the faculty of the Department of Education proper constitutes one division, and the faculty of the Division of Graphic Art another division.

DEPARTMENT OF EDUCATION

ELLWOOD PATTERSON CUBBERLEY, TRUMAN LEE KELLEY, JESSE BRUNDAGE SEARS, LEWIS MADISON TERMAN, Professors.

JOHN OSCAR CREAGER (University of Arizona), CALVIN OLIN DAVIS (University of Michigan), Acting Professors (Summer Quarter).

PERCY ERWIN DAVIDSON, WILLIAM MARTIN PROCTOR, Associate Professors.

J. HAROLD WILLIAMS (State School, Whittier), BEN WOOD (Columbia University), Acting Assistant Professors (Summer Quarter).

MELVIN LLOYD DARSIE (University of California, Southern Branch), Instructor (Summer Quarter).

GILES MURREL RUCH (University of Oregon), Instructor (Spring and Summer Quarters).

ALBERT SIDNEY RAUBENHEIMER, Research Fellow on the Buckel Foundation.

GILES MURREL RUCH, Research Fellow in Study of Exceptional Children.

JOHN CONRAD ALMACK, Teaching Fellow in School Administration.

DOROTHY PUTNAM, Department Librarian, and Secretary of the School of Education.

MRS. DAVID EVANS, Assistant Librarian.

The Department of Education offers six main lines of work:

1. Courses of a general nature on the history, function, financing, and administration of public education, intended in part as information courses for the general university student and without reference to the work of teaching. To such students the courses of Groups I and II are recommended.

2. Three major courses, which may be followed by candidates for the High School Teacher's Recommendation, each counting as one of the required majors, and offering preparation along the following lines:

a. Theory of Education. Intended for those desiring a general acquaintance with educational theory.

b. Supervisor of Special Subjects. Intended as preparation for those planning to become supervisors of special subjects, such as English, History, Science, and Mathematics, in normal schools or in public schools.

c. Principal or Superintendent. Intended for those desiring recommendation for administrative work in city school systems.

Each such major course requires the completion of 45 units of work in the Department of Education. (For an outline of each course, see the *Announcement of the School of Education.*)

3. Courses intended to assist other departments in preparing their students for certification to teach in secondary schools in California. All such students should confer with members of the Department of Education as to courses, but in general, courses 1, 2, 3 or 4, and 20 are recommended, if the candidate has not had experience in teaching. Five units of work in courses relating to secondary-school work are required of all candidates for the high school teacher's recommendation, under the regulations of the California State Board of Education, as are courses 27 and 28, if the candidate has not had previous experience in teaching. A Teacher's Course in Citizenship and a course on the California School System will also be required after February 1, 1923. (For a more detailed statement, see the *Announcement of the School of Education.*)

4. Courses primarily for major students, or those making Education a minor and intended to give special preparation to (*a*) those who desire to become teachers of Education in normal schools or colleges, (*b*) those who wish to prepare for supervisory or administrative positions in the public schools, elementary or secondary, and (*c*) those who wish to prepare for special educational work in the elementary or secondary field.

5. Courses and research work in the psychology and pedagogy of exceptional children. Two lines of work are offered in this field: (*a*)

elementary courses designed to give prospective superintendents and principals a general acquaintance with the problems of special education, and (*b*) research courses for the advanced student who looks forward to work as clinical psychologist in the public schools or institutions for defectives or delinquents. The Dr. C. Annette Buckel Foundation, supplemented by additional support from the Board of Trustees of the University, has provided for a "research fellowship in the psychology and pedagogy of backward children." A second "research fellowship in the study of exceptional children" has also been provided.

6. Courses for the preparation of teachers of drawing for the public schools, and for the general training of college students in artistic perception and graphic expression. (See Division of Graphic Art.) Students may enroll as major students in this division, beginning with the freshman year.

The courses in Education are open to all students as electives or as minor subjects, but only those who desire to prepare for one of the lines of work mentioned above under (4) or (5), and whose preparation and experience are satisfactory to the department, will be accepted as major students. Only graduates of normal schools or other teachers' training schools, or those having had teaching experience and having junior standing will be accepted (except under special circumstances) as major students in Education during the two undergraduate years. Graduate work in Education is open to all properly qualified students, without these restrictions.

Major Requirements

Undergraduate Work.—Major students begin their work in Education with the junior year, taking courses 1, 2, and 3 or 4. These courses are also open as electives to second-year students. Psychology 1 and 6 should also be taken this same year. Collateral work will be advised to meet individual needs, though a course in biological science and the course in Organic Evolution ordinarily will be required. For graduation the student must complete thirty units of selected work in the department, and satisfy the requirements of two minors in the School of Education and outside the department. Students coming with advanced or graduate standing from other universities may have substantially equivalent preparation or experience accepted in lieu of the courses and the major and minor work required here, and be permitted to do more advanced work instead.

First Graduate Year.—The requirements for the baccalaureate degree cover only introductions to the different fields of Education, and those proposing to offer themselves for responsible positions in educational work will be expected to proceed at once to the Master's degree.

For this at least thirty units in advance of the baccalaureate requirements, together with the presentation of a satisfactory thesis, will be required. Work in Group I will not be included, and ordinarily one-half of the thirty units must be work listed under Groups III, IV, and V. The completion of the first year of graduate study should mean a somewhat general acquaintance with the different fields of Education, together with the beginnings of specialization in some one or two of these. Those who desire to prepare properly for the type of positions indicated under 4 or 5 should proceed to the doctorate.

Second Graduate Year.—During the second year of graduate study the student will be expected to attain a mastery of the literature and practice in three of the following divisions of the subject: (1) History of Education, European and American, (2) the Theory and Practice of Elementary or Secondary Education, (3) the Organization and Administration of Education, (4) Educational Psychology and Theory, (5) Educational Hygiene. Students intending to proceed to the doctorate, either at once or later, should select one of these divisions as a major and one as a minor, and by the end of the second year of graduate study should also have completed in large part the required work in a second minor, outside of the department; should be able to pass off the modern language requirements (German and French); and should be well started on the dissertation. Acceptance as a candidate for the Ph. D. degree requires an affirmative vote of the department faculty, and acceptance, after a preliminary examination, by a special examining board appointed by the Committee on Graduate Study.

Third Graduate Year.—The final year will be devoted largely to personal investigation along the lines of the thesis subject, under the direction of the member of the department in charge.

Library and Practical Facilities

The general university library contains the important recent books, files of the more important educational magazines, both American and foreign, and a collection of early American educational magazines and reports. The special library of the department, consisting of about 8000 volumes, contains one of the most complete collections of American state and city school reports to be found in the United States, the library ranking probably third in this respect. It is also rich in old college and normal school catalogues and text-books, of much historical value. The collection of old and present-day school text-books is also large and valuable.

In practical facilities the department has good working connections with the State Teachers' College at San Jose, and with the public schools

of the immediate vicinity. For more important studies by advanced students the large city school systems in the vicinity of the University can usually be made available.

The department is also provided with a research laboratory for use in connection with the Buckel Foundation. This is well equipped with the apparatus, blanks, and other materials used in mental and physical tests.

Additional courses to those listed below will be provided for the summer quarter.

I. Elementary and Introductory Courses

[Open to any one with teaching experience, and to all others except first-year students.]

1. Public Education in America.

A study of some of the more important present-day problems in the organization and administration of public education in the United States, in the light of their historical development. An introductory course. Lectures, following a text, with assigned readings.

3 units, autumn quarter (Cubberley) MWF 11
autumn, 56

2. Introduction to the Study of Education.

A study of typical phases of the organization and administration of public education, with a view to presenting such a body of information relating to the work of our public schools as the citizen and the teacher ought to have, and at the same time making the course an introduction to the various fields of education. Lectures, following a text, and assigned readings and reports.

3 units, winter quarter (Sears) MWF 11
winter, 34

3. Hygiene of the School Child.

A study of the physical basis of education, including such topics as growth, physical defects, health supervision, etc. Lectures following a text, and assigned readings and reports.

3 units, spring quarter (Ruch) MWF 11
2½ units, 1st half, summer quarter (Darsie) MTWThF 8
spring, 42; summer, 58

4. Educational Theory.

An introduction to a philosophy of education, construed as an integrated view of the conditions and purposes of educational effort; biological infancy, human endowment and culture, education in relation to the problems of social progress and conservation. Lectures, following a syllabus, with assigned readings.

5 units, spring quarter (Davidson) MTWThF 9
spring, 29

II. More Advanced Courses, But of a Somewhat General Nature

[Open to those of teaching experience, and to third- and fourth-year students. In general, courses 1, 2, and 3 or 4 should precede these courses.]

12. Education and Character.

A study of the significance for education of the psychology of character. Growth

and character; types and individual differences; principles of training; educative agencies.

5 units, winter quarter (Davidson) MTWThF 9
winter, 37

14. Intellectual Education.

A study of the significance for education of the psychology of attention, interest, thinking, and belief. Development; individual differences; principles of training; educative agencies.

5 units, winter quarter (Davidson) MTWThF 10
winter, 17

16. Hygiene of the School Plant.

A study of the fundamental problems involved in schoolhouse construction, including standards of construction and planning, unit cost, etc.

2 units, winter quarter (———) [Not given in 1921–22]

18. Elementary Education.

An introductory course, designed to meet the needs of those qualifying for the elementary teacher's certificate.

4 units, spring quarter (Freeland) WF 3–5
spring, 36

III. Courses Intended Primarily for Those Preparing to Teach in Secondary Schools

[Open to seniors and graduate students. Course 27 should precede course 28 by one quarter.]

20. Principles of Secondary Education.

A course dealing with the aims, purposes, and underlying principles of secondary education, intended for those preparing to teach in secondary schools, and required of all candidates for the California High School Recommendation. Open to seniors and graduate students only.

3 units, autumn and *spring quarters (Proctor) MWF 8
autumn, 60; spring, 66; summer, 1

22. Administrative Problems in Secondary Education.

A number of practical problems relating to the administration of a secondary school, such as organization, curricula, teaching staff, community relationships, part-time education, etc., will be considered. A specific problem will be assigned for individual investigation by each student electing the course. Open to those who have had course 20 or teaching experience, and especially intended for those preparing for administrative work in the secondary field.

3 units, summer quarter [Not given in 1921–22]

24. High School Administration.

This course is designed to meet the needs of experienced teachers and prospective and active principals and superintendents who wish to make a study of some of the practical problems relating to the administration of the Secondary Schools. Among the topics considered are: changing conception of aims; pupil constituency; organization of the school work; relation of the high school to the elementary school and to higher institutions of learning; administration of the school day; administration of student collateral activities; supervision of instruction; securing growth of teachers in service; measuring attainments; and school publicity.

Lectures, readings, and discussions. Each member of the class will also be expected to investigate and report upon a special assigned problem.

5 units, summer quarter (DAVIS) MTWThF 9
summer, 56

25. Vocational Education and Guidance.

A course in principles, methods, and literature of vocational education and vocational guidance. Consideration will be given to methods of vocational guidance in high schools and to the organization and administration of vocational and part-time education under state and national laws. The course will be designed to meet the needs of vocational counselors, directors of vocational part-time education, and High School principals.

3 units, winter quarter (PROCTOR) MWF 8
winter, 41

26. The Junior High School.

This course will deal with the development, organization, and administration of the Junior High School. Methods of teaching, curriculum, types of buildings, etc., will be considered. Particularly designed for those who are candidates for intermediate certificates, or expect to become supervising principals.

2 units, winter quarter (PROCTOR) TTh 8
3 units, summer quarter (DAVIS) MWF 8
winter, 48; summer, 27

27. Methods and Management of Instruction.

A practical course in the methods and management of secondary instruction. The psychology of the high school subjects will be considered, and opportunity for directed observation of expert secondary instruction will be given. This course is intended to be a preparation for practice teaching, and should be taken before course 28.

2 units, autumn and *spring quarters (PROCTOR) TTh 8
autumn, 63; spring, 61

28. Practice Teaching.

Practice in the handling of classes and the giving of instruction, with accompanying conferences, six units of credit in such work being required of all inexperienced teachers, by the rules of the State Board of Education, for a California High School Teachers' Recommendation. This may be arranged for at the University, at the State Teachers' College, San Jose, or at any State Teachers College in California. Those who desire to do practice teaching should secure from the Secretary of the School of Education, or from the Director of Teacher Training (PROCTOR), a blank form of application for a practice-teaching position, and fill out and file the same with the Director of Teacher Training during the quarter preceding the one in which they desire to fulfill their practice teaching requirement. Conference with all practice teachers required each week.

3 units, autumn, *winter, and *spring quarters (PROCTOR)
Conference M 4:05–5
autumn, 37; winter (conf.) 35, (prac.) 44; spring, 56; summer, 2

IV. ADVANCED COURSES

[Intended primarily for teachers of some experience, and for students making Education a major or a minor. Open to such of junior standing or above.]

30. Education and Modern Social Problems.

A discussion of principles in connection with the following topics: The distribution

of educational opportunity; federal aid; education and industry; education and the problems of citizenship and nationality; Americanization of aliens; family, church and school; liberal education; professional ethics; teachers' unions and organizations; the democratic principle in school administration.

5 units, summer quarter (DAVIDSON) MTWThF 10
summer, 37

31. Education and Character: Advanced.

A continuation of courses 12 and 14. Open to students who have had either of these courses or its equivalent.

4 units, spring quarter (DAVIDSON) Hours to be arranged
spring, 7

32. Mental Tests.

An introductory course dealing with the psychological principles of mental testing, test procedure, and practical applications. General Psychology is a prerequisite, and Educational Statistics must accompany or precede. (Course 10 in the Department of Psychology.)

4 units, summer quarter (MERRILL) MTThF 11

33a. Educational Psychology.

Original endowment; mental development; individual differences in relation to heredity, sex, and environment. General Psychology is a prerequisite, and Educational Statistics must accompany or precede.

4 units, autumn quarter (TERMAN) MTThF 11
autumn, 24

33b. Educational Psychology.

Learning, formal discipline, work and fatigue. Prerequisites: General and Experimental Psychology, or their equivalents. Educational Statistics must accompany or precede.

4 units, winter quarter (TERMAN) MTThF 11
4 units, summer quarter (RUCH) TWThF 10
winter, 16; summer, 14

34. Graphic Methods of Presenting Facts.

This course is designed to give practice in the methods which are serviceable in the popular portrayal of statistical data. In addition to graphic presentation some attention will be devoted to a consideration of the merits of various tabular arrangements of material. There are no prerequisites to the course, but a knowledge of lettering is desirable. Intended primarily to show prospective school officers how best to display statistical facts.

2 units, autumn quarter (KELLEY) TTh 10
2 units, summer quarter, 2d half (WILLIAMS) MTThF 1
autumn, 10; summer, 12

35. Elementary Educational Statistics.

A study will be made of the various kinds of statistical series and the properties of each. The purpose of the first part of the course will be to discover what constitutes the significant features of a body of data. Opportunity to obtain practice in the computation of the important constants of distributions will be given; also in the use of calculating machines and other aids to computation. The approach will be inductive, starting with measures and having as its object the discovery of the statistical resources which are available for making data reveal their story.

4 units, autumn quarter (KELLEY) MTThF 8
4 units, summer quarter (WOOD) MTWTh 8
autumn, 25; summer, 39

36. Statistical Methods.

This is a continuation of course 35, and will deal primarily with series of related measures. The statistical methods of analysis of correlated data and the means of combining several measures into total scores will be treated, with particular application to educational and mental test data and problems. Education 35 is a prerequisite.

4 units, winter quarter (KELLEY) MTThF 8
winter, 11

37. Juvenile Problems in Education.

A study of the extent, causes, and prevention of juvenile delinquency, mental deficiency, and other social irregularities related to the work of the public schools and state institutions. Special attention is given to the recent juvenile research developments in California, and to the newer methods of dealing with exceptional children.

2½ units, 2d half, summer quarter (WILLIAMS) MTWThF 8
summer, 30

38. History of Education in Europe.

A study of the development of educational practices and systems through the Greek, Roman, medieval, and modern periods in Europe, with the main emphasis upon the post-renaissance period. A study of present-day education and present-day state educational organization in the light of their historical development, and a study of the history of practices rather than the history of theory. Designed especially for major students and those expecting to teach the history of education in normal schools and colleges. Study of text and sources.

4 units, spring quarter (CUBBERLEY) MTThF 11
2½ units, 1st half, summer quarter (CUBBERLEY) MTThF 3
spring, 19; summer, 53

39. History of Education in America.

A study of the evolution of American educational ideals and practices, with some emphasis upon their more important European antecedents, but with special reference to the origin and development of those features of our present-day practices which are most characteristically American. Lectures, following a text, with assigned readings, and the investigation of a special topic.

3 units (CUBBERLEY) [Not given in 1921–22]

40. State School Administration.

A study of the educational principles underlying the proper administration of school systems in states and counties, and involving a comparative study of the school laws and school systems of the various American states. The course includes a study of such topics as federal and state policy, forms of control, revenue and its apportionment, the state and the teacher, the state and the child, private and sectarian education, and state oversight and control.

4 units, spring quarter (CUBBERLEY) MTThF 10
4 units, summer quarter (CUBBERLEY) MTThF 4
spring, 27; summer, 31

42. Rural Education.

A study of the social and economic factors involved in the development of rural institutional life; how these explain the present status of the larger administrative and supervisory problems of rural education; and the principles and practical methods essential to the solution of these problems.

2 units (CUBBERLEY) [Not given in 1921–22]

44. The Principal and His School.

A practical course, dealing with the organization and administration of a single school, the organization and supervision of instruction, school extension, community relationships, etc. Thesis on some administrative problem required of each student.

2 units, 2d half, summer quarter (CUBBERLEY) MTThF 3
summer, 42

45. City School Administration.

A study of the educational, financial, and administrative principles underlying the proper administration of school systems in cities, with a view to the establishment of principles of action. A thesis on some problem in city school organization or administration or a survey of some city school system required of each student.

4 units, autumn quarter (CUBBERLEY) MWF 10
5 units, summer quarter (CREAGER) MTWThF 11
autumn, 29; summer, 18

46. School Surveys and Educational Diagnosis.

A study of the literature relating to school surveys and other forms of educational measurements, as a basis for the investigation of practical problems in school administration and supervision. How to organize and conduct a school survey, what to look for, how to collect and interpret data, and how to set forth the results of the investigation will be important features of the course.

5 units, winter quarter (SEARS) MTWThF 10
winter, 18

47. Public School Finance.

A study of public school finance as a special problem in the science of finance, and in its relation to the problems of formulating educational policies. The schools' share of public money; sources of income and methods of raising school revenue; analysis of current distributions of school expenditures; credit financiering in public education; cost accounting; budgeting; purchasing and business management. Courses such as 35, 40, 45, and 46 are desirable as prerequisites.

5 units (SEARS) MTWThF 10
summer, 22

49. Educational Tests and Measurements.

A course dealing with the use and interpretation of educational tests and scales in the administration and supervision of instruction, simple statistical and graphical methods, the significance of scores, and the diagnostic value of the results obtained.

4 units, winter quarter (KELLEY) MTThF 9
4 units, *summer quarter (WOOD) MTWF 9
winter, 16; summer, 24

50. The Elementary School Curriculum.

A study of the principles underlying the organization of subject-matter for courses in the elementary school, including a critical examination of curricula, syllabi, and school texts in the light of their function in the teaching and administration of the curriculum.

3 units, summer quarter (SEARS) MWF 11
summer, 25

51. Organization and Supervision of Elementary Education.

A course dealing with the more important problems of organization, management, and supervision of the elementary school, including such topics as grade, departmental, group, and individual systems of class organization; typical promotion

schemes; program making; time allotment; grades and marks; records and reports; attendance, and retardation.

5 units, spring quarter (SEARS) MTWThF 10
spring, 12

52. The Measurement of Certain Non-Intellectual Functions.

Essentially a research course. Attention will be given to the measurement of interest; of special sensory capacity; and of certain specific habits and skills. The bearing upon educational and vocational guidance will be particularly stressed. Admission by permission of the instructor.

2 units, autumn quarter (KELLEY) TTh 11
autumn, 6

53. Criticism and Supervision of Instruction.

A few advanced students, who have had sufficient teaching experience, will be allowed to undertake the personal investigation, in the schools of the vicinity, of problems in instruction or supervision. Collateral reading and detailed written reports will be required. Enrollment only after conference with the instructor concerned.

1 unit, autumn, *winter, and *spring quarters (PROCTOR)
autumn, 3; winter, 8; spring, 2

54. Thesis Work.

In certain courses, students may be given an additional unit of credit on presentation of a satisfactory thesis on an assigned topic, embodying the results of independent work. The consent of the instructor is necessary before registering.

1 unit, any quarter
autumn, 4; winter, 9; spring (2 groups), 1, 7

V. GRADUATE AND SPECIAL COURSES

[Intended primarily for graduate students in Education and Psychology.]

55. American Teaching Practice.

An appraisement of the procedures employed in the teaching of the elementary school branches in the light of the available experimental and statistical studies bearing upon them. Arranged primarily for principals and supervisors.

3 units, summer quarter (DAVIDSON) F 2–4
summer, 6

57a. Intelligence Tests and the Psychology of Endowment.

The first quarter will be devoted to a critical survey of the literature of mental tests, with special reference to the psychological principles of measuring intelligence. Prerequisites: General and Experimental Psychology, and Educational Statistics.

4 units, autumn quarter (TERMAN) MTW 1–4
autumn, 13

57b. Intelligence Tests and the Psychology of Endowment.

A continuation of *57a*. During the second quarter practice will be given in mental testing and the treatment of data.

4 units, winter quarter (TERMAN) MTW 1–4
winter, 10

58. Research Seminar.

Devoted to problems in mental tests and applied psychology. Prerequisites: Educa-

tional Statistics, General and Experimental Psychology, and one or more courses in mental tests.

4 units, spring and summer quarters (TERMAN) TTh 1-4
spring, 9; summer, 21

59. Practical Administrative Problems.

A study and discussion of a number of practical problems in the organization and administration of a system of public instruction, in cities.

4 units (CUBBERLEY) [Not given in 1921–22]

60. Seminar in Administrative Problems.

3 units, spring quarter (SEARS) TTh 11
spring, 8

61. Reading Seminar in Educational and Applied Psychology.

1 unit, autumn, winter, and spring quarters (TERMAN, KELLEY)
autumn, 7; winter, 6; spring, 10 Alt. Th 7:30–9:30

62. Reading Seminar in Administrative Problems and Procedure.

1 unit, autumn, winter, and spring quarters (CUBBERLEY, SEARS)
autumn, 18; winter, 19; spring, 24 Alt. Th 7:30–9:30

63. Reading Seminar in Problems of High School Administration.

1 unit, winter quarter (PROCTOR) Alt. T 7:30–9:30

64. Reading Seminar in Vocational Education.

1 unit, spring quarter (PROCTOR) Alt. T 7:30–9:30
spring, 12

70. Special Courses.

In addition to the listed courses, special work in independent investigation will be provided for students prepared to do such advanced work, the nature of the investigation being determined by the student's preparation and needs. The number of units of credit to be given is subject to individual arrangement. The members of the instructing staff stand ready to supervise independent investigations in the following fields:

(*a*) Problems in educational theory. (DAVIDSON)
spring, 2; summer, 1

(*b*) Problems in the history and organization of American education. (CUBBERLEY)

(*c*) Problems in state, county, and city school organization, finance, and administration. (CUBBERLEY, SEARS)
autumn, 4; winter (2 groups), 1, 1; spring (2 groups), 5, 5; summer (2 groups), 6, 3

(*d*) Problems in the organization and administration of elementary education. (SEARS, KELLEY)

(*e*) Problems in the organization and administration of secondary education. (PROCTOR)
spring, 9

(*f*) Problems in educational psychology and mental tests. (TERMAN)
autumn, 6; winter, 1; spring, 3; summer, 8

(*g*) Problems in educational tests and measurements, and problems requiring statistical treatment. (KELLEY)
winter, 2

(*x*) Problems in Social Hygiene.
2 units, summer quarter (CADY) MW 7:15 p. m.
summer, 12

VI. COURSES FOR TEACHERS OF SPECIAL SUBJECTS

A number of special courses of instruction, and groupings of courses, designed to prepare teachers for special work in the public schools, have been arranged and are described in the *Announcement of the School of Education* (issued in June). These include courses designed to prepare commercial teachers, manual arts teachers, teachers of home economics (in connection with the San Jose State Teachers' College), teachers of physical training, and teachers of the various high school subjects.

VII. COURSES IN OTHER DEPARTMENTS

The following Teacher's Courses, in other departments, are designed for students preparing to teach special subjects in secondary schools, and are offered in connection with the preparation in the teaching majors and minors as described in the *Announcement of the School of Education.* Such courses are usually necessary for the Teacher's Recommendation, and may be counted to the extent of four and a half units as part of the work required in Education. (See *Announcement of the School of Education* for further information.)

a. TEACHER'S COURSE IN CHEMISTRY.—[See Department of Chemistry.]
b. TEACHER'S COURSE IN DRAWING.—[See Division of Graphic Art.]
c. TEACHER'S COURSE IN ENGLISH.—[See Department of English.]
d. TEACHER'S COURSE IN FRENCH.—[See Department of Romanic Languages.]
e. TEACHER'S COURSE IN GERMAN.—[See Department of Germanic Languages.]
f. TEACHER'S COURSE IN GREEK.—[See Department of Greek.]
g. TEACHER'S COURSE IN HISTORY.—[See Department of History.]
h. TEACHER'S COURSE IN LATIN.—[See Department of Latin.]
i. TEACHER'S COURSE IN ORAL EXPRESSION.—[See Department of English.]
j. TEACHER'S COURSE IN PHYSICS.—[See Department of Physics.]
k. TEACHER'S COURSE IN SPANISH.—[See Department of Romanic Languages.]

DIVISION OF GRAPHIC ART

Arthur Bridgman Clark, Professor.
Chloe Lesley Starks, Assistant Professor.
Emil Grebs, Lecturer.

The work aims primarily to prepare students for positions as teachers of drawing and art in secondary schools. Many of the courses are also suitable for the practical and general cultural needs of students in other departments.

Intending teachers of art may register with Graphic Art as their major subject.

Requirements for Graduation

A. As Preliminary to a Fifth Year.—50 units in Graphic Art; 21 to 51 units (the completion of all except 9 units) of a teaching major or two teaching minors, other than Graphic Art; *9–13 units in Education applicable to the Secondary Teacher's Certificate. (180 units as a total in all courses.)

(The requirements of various departments for teaching majors and minors are set forth in the *Announcement of the School of Education*, pp. 39–58.)

B. Including Special Certificate of the Manual and Fine Arts Type Courses, as required by the State Board of Education.—67 units in Graphic Art and Drafting; *23 units in Education; 45 units (15 each in any three) teaching majors or minors; balance of 180 units, any courses in the University.

(See *Announcement of the School of Education*, pp. 29–30, and 59-60. This certificate permits the holder to teach only the special subjects in which he is recommended and not the so-called "regular" subjects of the high school, not even in part.)

C. Master's Degree, Including Secondary Teacher's Certificate.—One graduate year including the following: 26 units, including thesis, in Graphic Art; *11 units in Education (or enough with courses taken in previous years to make the required 23 units); 9 units in the teaching major or minors (other than in Graphic Art), or enough with the courses taken previously to complete these majors or minors.

1. Still-Life and Out-of-Door Sketching.

Fundamental principles in blocking, proportion, and light and shade; materials: charcoal and colored crayon. Open to all students.

3 to 5 units, autumn quarter (Starks) MTWThF 1:05-4:05
autumn, 14

* Course 10 in Graphic Art may count either as Education or as Graphic Art, but not as both in the same schedule.

2. Landscape.

Working out-of-doors in pencil, charcoal, and colored crayon. Open to all students who have had the equivalent of course 1.

5 units, spring quarter (STARKS) MTWThF 9–12
spring, 9

3. Organic Form.

Drawing shells, leaf sprays, animal forms, etc., with reference to discipline in accuracy, and the perception of decorative arrangement. Preparation for course 4. Open to all students.

3 to 5 units, winter quarter (STARKS) MTWThF 1:05–4:05

4a. Design.

Structural design, attention to expression of structure, space filling, borders, squares, surface patterns, etc., in application to crafts and the interior of the house. Three units of technical work, preferably course 3, a prerequisite. (May be taken with advanced problems by fourth- and fifth-year students.)

3 units, spring quarter (CLARK) MTW 1:05–4:05
spring, 6

4b. Design in Color.

The design school of recent development, based upon or developed from the use of rich color wherever it may be found in nature and in art. The aim of the course is to develop creative expression in design and color. A series of problems will be given, setting forth principles of design composition and color harmony. Each problem to be rendered by the student directly with the brush in tempera color. Beginning with basic geometric forms, the student is led to interpret flowers, birds, and a diversity of Nature's forms. This course is prerequisite to Textiles, 7*d*.

5 units, winter quarter (STARKS)
winter, 23 Lec. TTh 8, MTWThF 1:05–4:05; Lab. to be arranged

5. Art of House Building.

The course is a systematic study of the fundamental principles which underlie taste, convenience, and economy in house designing and furnishing. The principles and necessity of civic planning are also given brief consideration. The subject matter treated is of such universal interest and importance that the exercises assigned are kept well within the accomplishment of earnest students even though they may have had little or no previous training in drawing. However, a great deal of drawing, chiefly with the pencil, is required in the course as the most efficient means to the understanding of design in proportion, line and surface, and sensitiveness to beauty of all kinds. These drawings are made in part with the T-square on a drafting board, in part by tracings from cuts and photographs. The first half deals with types of exteriors and their design and plans; the second half with interior treatment, furniture, yard, and civic planning. A few trips of observation will be made in the suburban towns toward San Francisco. Open to all students.

5 units, winter quarter (CLARK) MTWThF 11
winter, 19

6a. Painters of the Renaissance, from Giotto to Velasquez.

Lectures. Open to all students.

3 units, autumn quarter (CLARK) MWF 9
autumn, 32

6b. Painters of the Nineteenth Century and of the Present Time.

Lectures. Open to all students.

3 units, winter quarter (CLARK) MWF 9
winter, 46

7a. Handicrafts.

Pottery, modeling, casting, glazing, and firing bowls, vases, etc. Open to students who have had three units of technical work in drawing or design.

5 units, autumn quarter (CLARK) MTWThF 1:05–4:05
autumn, 8

7b. Handicrafts.

Metal work, making trays, bowls, book supports, etc., in sheet copper; and jewelry, in silver and semi-precious stones. Open to all students who have had three units of technical work in drawing or design.

5 units, winter quarter (CLARK) [Not given in 1921–22]

7c. Handicrafts.

Textiles. The decoration of textiles in articles of house use, and personal belongings, block-printing, decoration of textiles by dyeing, embroidering and batik. Open to students who have had course 4*b* or its equivalent.

5 units, spring quarter (STARKS) MTWThF 1:05–4:05
spring, 12

8. Scientific Perspective.

A series of problems drawn with instruments, and involving the various principles of perspective and shades and shadows. The latter part of the course involves making drawings from actual buildings. Open to all students.

5 units, autumn quarter (CLARK) MTWThF 11
autumn, 15

9. Science Drawing.

A course designed to assist students in scientific illustration. It includes the drawing of simple scientific subjects in pen outline, line and stipple shading, wash, line and wash. Especial attention is paid to the needs of individual students. Open to science students on advice.

3 units, autumn and *winter quarters (STARKS) 8–12 by arrangement

10. Teachers' Course.

For intending teachers of art. Discussions of the aims and methods in drawing and art instruction in the public schools, technical work in review and in preparing courses of study, and trips for observation of teaching methods in the schools of neighboring cities. Open only to senior and graduate students.

4 units, spring quarter (CLARK) MWF 11, and F 1–4
spring, 11

11. Commercial Art and Lettering.

Poster work, a study of the requirements of commercial art, technical difficulties and limitations, studies in lettering for artistic and commercial needs, many practical problems of commercial and printing arts. Open only to students of considerable previous training in drawing.

5 units, autumn and spring quarters (GREBS) MTWThF 1:05–4:05
autumn, 13; spring, 12

12. Special Courses in Art Education.

Advanced work in connection with the subject matter of courses 4, 5, 7, 9, 10, and 11, will be arranged for graduate students.

autumn, winter, and spring quarters (CLARK) By arrangement
autumn, 2; summer, 1

ENGINEERING

A. Entrance Subjects

Entering students whose major work is to be in any engineering department should be thoroughly prepared in elementary mathematics, with entrance credit in algebra (at least one and one-half units), plane geometry, and plane trigonometry, in order to be able to take the first year's work in applied mathematics for engineers. Furthermore, it is advisable for them to have entrance credit in mechanical drawing.

Students who expect to complete the requirements for graduation from the Civil Engineering Department in four years should enter with credit for two high-school units in one foreign language, one unit in chemistry, one unit in biological science, and one unit in history, in addition to the foregoing preparation in mathematics.

B. General Courses

I. APPLIED MATHEMATICS

[See courses announced by Department of Applied Mathematics.]

II. GENERAL TECHNICAL COURSES

1. Linear Drawing.

A training in the use of drafting implements to enable the student to construct accurate pencil drawings and make clean-cut ink lines. Open to all students, and required of those whose major subject is in Civil, Mechanical, Electrical, or Chemical Engineering, or in Geology and Mining, whether or not they have entrance credit in mechanical drawing. This requirement is waived, however, for a student who satisfies the instructor that he has had the equivalent of this course, by submitting certified work in linear drawing or by passing a special examination. The instruments and materials for this course cost from thirty to forty dollars.

1 unit, autumn, *winter, and *spring quarters (Thomas)
autumn, 41; winter, 28; spring, 26 W 1:05–4:05, or S 9–12

2. Lettering.

A training in engineering lettering and title making. Open to all students, and required of those whose major is in Civil, Mechanical, Electrical, or Chemical Engineering, or in Geology and Mining, whether or not they have entrance credit in mechanical drawing. This requirement is waived, however, under certain conditions specified under Linear Drawing, above.

1 unit, autumn, *winter, and *spring quarters (Thomas)
autumn, 73; winter, 59; spring, 41 W 1:05–4:05, or S 9–12

3. Descriptive Geometry.

Open to students who have completed or are taking engineering 1 and 2, or have had their equivalent. It is required of students whose major is in Civil, Mechanical, Electrical, or Chemical Engineering, or in Mining and Metallurgy.

This course deals with principles and methods used in making with mathematical exactness drawings of objects and geometrical magnitudes, and in solving problems involving their space relations, without going into details of shop notes, field notes,

machine drawing and design, and topographic and geologic mapping, to which subjects it serves as a preliminary. The principles embodied in the course are limited to those pertaining to the "method of choosing new projection planes," the method almost universally used in Engineering practice.

4 units, winter quarter (Cutter)
winter, 158 Rec. TTh 8 or 11; Dft. MT 1:05–4:05, or ThF 1:05–4:05

10. Applied Mechanics.

Lectures and recitations. Strength and elastic properties of the ordinary materials of engineering construction. Simple tension, compression, and shear. Flexure, with application to simple, continuous, and non-homogeneous beams. Long columns, torsion, repeated stress, sudden stress, resilience, etc. Laboratory: Testing strength and elastic properties of materials and structures. Open to students who have completed courses *3a* and *3b* in Applied Mathematics.

5 units, autumn quarter (Moser)
Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05, or ThF 1:05–4:05
autumn, 143

11. Applied Mechanics.

Continuation of Engineering 10.

5 units, winter quarter (Moser)
winter, 78 Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05

12. Hydraulics.

Lectures and recitations. Fluid pressure and equilibrium, flow of water through orifices, over weirs, in open and closed conduits. Laboratory. Calibration of instruments. Measurement of pressure, velocity, and flow and friction loss of water under various conditions. Open to students who have completed courses *3a* and *3b* in Applied Mathematics.

5 units, spring quarter (Moser)
Lec. MWF 9; Lab. MWF 10–12, or TTh 9–12, or MT 1:05–4:05, or ThF 1:05–4:05
spring, 132

[Note.—See also Hydraulic courses listed under Mechanical Engineering.]

Laboratory Fees.—Courses 3, 10, and 11, $1 each; 12, $2.

CIVIL ENGINEERING

Charles David Marx, John Charles Lounsbury Fish, Leander Miller Hoskins, Charles Benjamin Wing, Professors.
Charles Moser, Earl Charles Thomas, Assistant Professors.

A. Topographic Engineering

19. Map Reading.

Interpretation of maps, including topographic maps. Open to students who know how to solve right triangles. Required of students whose major subject is Civil Engineering.

1 unit, autumn and *winter quarters (Thomas) W 1:05–4:05 or S 9–12
autumn, 36; winter, 11

20. Elementary Surveying.

Ten recitations: first principles of surveying, including coördinates, bearings, azimuths, deflections, stadia, and leveling. Field (45 hours): exercises with tape, pocket instruments, traverse board, transit, level and plane table. Drafting room

(15 hours): plotting and adjusting traverses; plotting profiles; computing areas; inter-relations of bearings, azimuths, deflections, and latitudes and departures. Required of students whose major subject is Civil Engineering or Geology. Open to others only by permission. Prerequisites: Engineering 1 and 2, Applied Mathematics 1*a*.

3 units, autumn and *winter quarters (THOMAS) Rec. Th 11; Field and Dft. MT 1:05–4:05, or Th F 1:05–4:05
autumn, 48; winter, 15

21. Advanced Surveying.

Care and adjustment of instruments; astronomical determination of azimuth; base line measurement; triangulation; land surveying; topographic surveying; introduction to city, mine, hydrographic, and photographic surveying. Required of Civil Engineering students. Prerequisites: courses 19 and 20.

4 units, spring quarter (THOMAS) Rec. Th 8; Field and Dft. WThF 1:05–4:05
spring, 42

22. Advanced Surveying.

A course intended for Geology students. Care and adjustment of instruments; astronomical determination of azimuth; base line measurement; triangulation; land surveying; preliminary survey for railroad location; introduction to city, mine, hydrographic, and photographic surveying. Required of Geology students. Prerequisite: course 20.

4 units, spring quarter (THOMAS) Rec. Th 9; Field and Dft. WThF 1:05–4:05

23. Special Surveying.

Special courses intended for students who have completed course 20, or who have had practical experience in surveying, and who are interested in continuing some particular branch of surveying. Open only by permission.

1, 2, or 3 units, *autumn, * winter, and *spring quarters (THOMAS)
autumn, 1; winter, 10; spring, 2 By arrangement

24. Elementary Surveying.

An abridged course intended for Mechanical Engineering students. Care and adjustment of instruments; field exercises with tape; pocket instruments; level and transit. The application of plane surveying methods to mechanical engineering problems will be considered. Open to students whose major subject is Mechanical Engineering and to others only by permission. Prerequisites: Engineering 1 and 2 and Applied Mathematics 1*a*.

2 units, winter quarter (THOMAS) Field and Dft. MT 1:05–4:05
winter, 4

25. Engineering Surveys.

The application of surveying to engineering problems. Reconnaissance, preliminary, location, construction, and maintenance surveys pertaining to railroads, highways, waterways, etc. Prerequisite: course 21.

5 units, autumn quarter (FISH, THOMAS)
autumn, 14; winter, 2 Rec. TTh 9; Field and Dft. MTW 1:05–4:05

26. Special Engineering Surveys.

Courses arranged to meet special needs of students who have completed course 25 above, or have had considerable experience in engineering surveys. (Field work can be done only when two or more students elect to pursue the same work.) Open only by permission.

1 to 5 units (THOMAS) By arrangement

B. Engineering Economics

30. Engineering Economics.

Engineer in field of service, choice of investment opportunity, estimating, business units, business statistics, depreciation, valuation, economics of service. (Written recitations and problems.) Open to those who have 90 units of credit, and to others by permission.

3 units, autumn, *winter, and *spring quarters (Fish) Rec. MWF 8
spring, 37

31. Engineering Estimates and Reports.

Each student makes preliminary plans and estimates in connection with two or more structures proposed for a stated service, makes economic comparison and choice based on the estimated costs, and prepares a report on the object, conditions, methods, and result of his investigation. The course offers training in analyzing problems of choosing structures, logically planning steps of an engineering investigation, executing the steps (including use of references, of cost data, of methods of estimating, and arrangement and record of computation), and writing reports. Roughly, one-third of the time is devoted to looking up references, one-third to drawing and computing, and one-third to writing and revising the report. Open to those who are taking or have completed course 30, and to others by permission.

1 to 5 units, autumn, *winter, and *spring quarters (Fish) By arrangement
autumn, 12; winter, 9; spring, 7

C. Railroad Engineering

Railroad Surveying.

[See under Civil Engineering 25 (Engineering Surveys).]

43. Railroad Construction.

Field or office work assigned to individuals, according to their needs, along one or more of the following lines: (1) Excavating methods and plants. (2) Situation and drainage surveys; preliminary plans and estimates; choice of structure and site; working drawings; staking out; inspection; estimates of work done. (3) Collecting, recording, and filing information; instructions and reports. A formal report is required on each engineering problem assigned. Open to students who have completed courses 25 and 30, and to others by permission.

1 to 5 units, autumn, *winter, and*spring quarters (Fish) By arrangement
winter, 1; spring, 1

44. Railroad Location.

Locomotive tractive force and resistances thereto, velocity profile, momentum grade. Traction problems involving inter-relation of train weight, grade, speed, and characteristics of locomotive. Value of change in distance, curvature, rise and fall, and ruling grade, based on analysis of operating expenses. Pusher grades, balanced grades for unequal traffic and for adjacent divisions. Prerequisites: courses 30 and 40.

5 units, winter quarter (Fish) By arrangement

45. Railroad Reconnaissance.

An examination of country for feasible routes between two designated points. Collection and reduction of data for determining the relative merits of two or more feasible routes, and for estimating the promise of a road proposed to be built on the most favorable route. Prerequisites: courses 25, 30, 43, and 44.

5 to 10 units, autumn, *winter, and *spring quarters (Fish) By arrangement

D. Structural Engineering

50. Elements of Design.

(1) Materials (see Mining and Metallurgy 17). (2) Analytical and graphical determination of stresses in simple structures. (3) Investigation of distribution of stresses in structural details. Open to students who have completed Engineering 1, 2, and 3, and have taken or are taking Engineering 10 and Mining and Metallurgy 17.

3 units, autumn quarter (Wing) MTW 1:05–4:05
autumn, 26

51. Elements of Design.

(1) Wood, stone, brick, lime, cement, etc., studied from engineering standpoint. (2) Bearing power of soils, distribution of pressure, and details of design of simple sub-structures. (3) Designs, working drawings, bills of materials, and estimate of cost of some simple structure, such as a mill building or highway bridge. (4) Testing physical properties of cement and other masonry materials. Prerequisite: course 50.

5 units, winter quarter (Wing)
winter, 24 Lec. MWF 11; Dft. and Lab. MTW 1:05–4:05

52. Elements of Design.

This course completes the work undertaken in course 51.

5 units, spring quarter (Wing, Thomas)
spring, 22 Lec. MWF 11; Dft. and Lab. MTW 1:05–4:05

53. Elements of Design.

A short course to meet the requirements of students taking their major in Mining, Mechanical, Electrical, or Chemical Engineering. Special applications are made to hoisting and conveying structures, mill buildings, and central station buildings. Open to students who have had Engineering 1, 2, 3, 10, and Mining and Metallurgy 17.

3 units, quarter by arrangement (Wing) By arrangement
spring, 3

54. Structural Design.

Determination of stresses in modern types of bridges, including cantilever and swing spans, masonry arches, and arch ribs; discussion of most economical types, spans and dimensions of bridges and bridge members; study of methods of constructing sub-aqueous sub-structures, shop methods, erection, inspection of material, specifications, and other factors influencing the design of structures. Designs are made by each student to fulfill actual conditions. Prerequisite: course 52.

5 units, autumn quarter (Wing) Lec. TTh 10; Dft. WThF 1:05–4:05
autumn, 17

55. Structural Design.

Continuation of course 54.

5 units, winter quarter (Wing) Lec. TTh 10; Dft. WThF 1:05–4:05
winter, 19

56. Structural Design.

Continuation of course 55.

3 units, spring quarter (Wing) By arrangement
spring, 4

E. Hydraulic Engineering

60. Water-Supply Engineering.

Sources of supply. Collection and storage of water for water supply of towns or for

irrigation. Settling, filtering, conducting, and delivering of water, including the study and design of all accessory work. Prerequisites: Engineering 3, 10, 11 and 12, and Civil Engineering 51 and 52.

5 units, autumn quarter (MARX) Lec. MWF 10; Dft. ThF 1:05–4:05
autumn, 19

61. Water-Supply Engineering.

Continuation of course 60.

5 units, winter quarter (MARX) Lec. MWF 10; Dft. ThF 1:05–4:05
winter, 22

62. Water-Supply Engineering.

Continuation of course 61.

5 units, spring quarter (MARX) Lec. MWF 10; Dft. MT 1:05–4:05
spring, 15

63. Sanitary Engineering.

Including sewerage of towns and drainage of lands. Special attention will be given to the study of all municipal sanitation problems, such as removal of sewage, destruction of garbage, construction, maintenance, and sweeping of streets and pavements. Prerequisite: course 62.

5 units, spring quarter (MARX) By arrangement
spring, 12

64. Construction of Canals, River and Harbor Improvements.

Lectures and designing as per arrangement. Prerequisites: Engineering 12 and Civil Engineering 51 and 52.

3 units, autumn, winter, and spring quarters (MARX) By arrangement

65. Technical Seminary.

Study of German and French technical journals. Open only to fourth-year students in Civil Engineering.

3 units, autumn, *winter, and *spring quarters (MARX) By arrangement
autumn, 7; winter, 3

LABORATORY FEES.—Course 19, $1; 20, $3; 21, $4; 22, $2; 24, $2; 31, $1.50; 40, $3; 51, $2.

A Four-Year Curriculum in Civil Engineering

The following schedule assumes that the student enters with the preparation specified under the department heading "Engineering" and the subhead, "A. Entrance Requirements."

The asterisk (*) indicates that in special cases the department may accept, as a substitute for the course so marked, some other course.

Department and No.	First Year — Subject	Units Autumn	Units Winter	Units Spring
Engineering 1	Linear Drawing	1		
Engineering 2	Lettering	1		
C. E. 19	Map Reading	1		
	Language, Literature, or Formative Art		3	3
Appl. Math. 1a	Elementary Analysis	5		
Appl. Math. 1b	Elementary Analysis		5	
Appl. Math. 2a	Differential Calculus			5
	Citizenship	4	4	4
C. E. 20	Elementary Surveying	3		
C. E. 21	Advanced Surveying			4
Engineering 3	Descriptive Geometry		4	
		15	16	16
	Physical or Military Training	1	1	1
	Second Year			
Physics 1, 3	General Physics, Modern Physics	3	3	3
Appl. Math. 2b	Integral Calculus	5		
Appl. Math. 3a	Theoretical Mechanics		5	
Appl. Math. 3b	Theoretical Mechanics			5
	History	3	3	3
C. E. 25	Engineering Surveys	5		
Geology 1	Dynamical Geology*		5	
M. E. 12	Machine Drawing*			3
		16	16	14
	Physical or Military Training	1	1	1
	Third Year			
English 2	English Composition	3	3	
	Language, Literature, or Formative Art			3
Engineering 10	Applied Mechanics	5		
Engineering 11	Applied Mechanics		5	
Engineering 12	Hydraulics			5
Min. & Met. 17	Iron and Steel	3		
C. E. 50	Elements of Design	3		
C. E. 51	Elements of Design		5	
C. E. 52	Elements of Design			5
Economics 3	Elementary Accounting	3		
M. E. 23	Testing of Engines*		3	
C. E. 30	Engineering Economics			3
		17	16	16
	Fourth Year			
C. E. 31	Engineering Estimates and Reports*			
C. E. 54	Structural Design*	5		
C. E. 55	Structural Design*		5	
C. E. 60	Water-Supply Engineering*	5		
C. E. 61	Water-Supply Engineering*		5	
C. E. 62	Water-Supply Engineering*			5
C. E. 63	Sanitary Engineering*			5
M. E. 36	Pumping Machinery*		3	
E. E. 2, 22	Electricity in Engineering*		3	
E. E. 3, 23	Electricity in Engineering*			3
		10	16	13

ELECTRICAL ENGINEERING

HARRIS JOSEPH RYAN, Professor.
JAMES CAMERON CLARK, Associate Professor.
HENRY HARRISON HENLINE, Assistant Professor.
WARD B. KINDY, Instructor.

[With the coöperation of Professor MORENO of the Department of Applied Mathematics.]

The department offers courses of instruction for three groups of engineering students:

I. GENERAL GROUP.—Courses 2, 3, 22, and 23, Electricity in Engineering, are offered especially for fourth-year students in civil, mining, and chemical engineering, without prerequisites.

II. DYNAMIC GROUP.—Courses 4, 5, 24, 25, 26, and 7, with Physics 2 as prerequisite, are open to all third- and fourth-year students and are offered especially for students in mechanical engineering.

III. ELECTROTECHNIC GROUP.—The department admits as major students only those who have been granted the Stanford A. B. degree in engineering and who have completed the department's courses 4, 5, 24, 25, 26, 7, and 8; and those graduates of other institutions who present corresponding credits. Major students are recommended for the degree of Engineer in Electrical Engineering upon completion of Electrical Engineering courses 9, 10, 19, 40, and 41, Physics 8 and 16, and Applied Mathematics 8 (33 to 39 units), and electives as approved (12 to 15 units); total, 45 to 54 units.

Beginning with the autumn quarter, 1926, these requirements for the degree of Engineer in Electrical Engineering will be increased from the above numbers to a total of 90 to 108 units.

2. Electricity in Engineering.

A course for non-electrical engineering students. Prerequisites: First seven quarters of any of the Stanford engineering curricula and registration in Electrical Engineering 22.

2 units, winter quarter (KINDY) TTh 9
winter, 33

3. Electricity in Engineering.

Continuation of course 2. Prerequisites: courses 2 and 22, and registration in course 23.

2 units, spring quarter (KINDY) TTh 9
spring, 23

4. Direct Current Machinery.

Introductory study of direct current meters, machines, and auxiliaries. Prerequisites: Applied Mathematics 1, 2, 3; Engineering 1, 2, 3, 10, 11; Physics *2a, 2b, 2c, 2d,* and registration in Electrical Engineering 24.

2 units (HENLINE)
spring, 64

5. Alternating Current Machinery.

Alternating current meters, machines, and auxiliaries. Prerequisites: courses 4 and 24, and registration in course 25.

2 units, autumn quarter (HENLINE) TTh 9
autumn, 44; winter, 5

7. Electrical Engineering.

A course in general practice relating to equipment and methods as affected by the requirements of economics, reliability, and safety. Advised for mechanical engineers; required for electrical engineers. Prerequisites: courses 4, 5, 24, and 25.

3 units, winter quarter (RYAN) MWF 8
winter, 42

8. The Electric Circuit.

Class work; essentially a problem course. Prerequisites: courses 7 and 26.

3 units (CLARK)
spring, 17

9. The Magnetic Circuit.

Class and problem work extending the studies begun in course 8. Prerequisites: courses 7 and 8.

3 units, autumn quarter (CLARK) By arrangement
autumn, 7

10. Advanced Electrotechnics.

A course developed with particular reference to the study of the problems of long-distance transmission of energy. Prerequisites: courses 26, 7, 8, and 9, and Applied Mathematics 8.

4 units, winter quarter (CLARK) By arrangement
winter, 7

11. Electrical Engineering Practice.

Guidance for the individual in the study of the Transactions of the American Institute of Electrical Engineers and other literature of practice. Open only to Electrical Engineering majors.

5 units, spring quarter (RYAN) By arrangement
autumn, 1; winter, 1; spring, 11

19. Seminar.

A weekly conference for the discussion of current electrical engineering literature and special topics. Open only to Electrical Engineering majors.

2 units, autumn, winter, and spring quarters (CLARK) By arrangement
autumn, 10; winter, 11; spring, 13

22. Electricity in Engineering.

A laboratory course to accompany course 2. Prerequisite: registration in course 2.

2 units, winter quarter (KINDY) T or Th, 1:05–4:05
winter, 30

23. Electricity in Engineering.

A laboratory course to accompany course 3. Prerequisite: registration in course 3.

2 units, spring quarter (KINDY) T or W, 1:05–4:05
spring, 23

24. Direct Current Machinery Laboratory.

To accompany course 4. Prerequisite: registration in course 4.

3 units (HENLINE, KINDY) Lab. M or Th or F 1:05–4:05 or S 9–12
spring (2 sections), 35, 31 Quiz by arrangement

25. Alternating Current Machinery Laboratory.
To accompany course 5. Prerequisite: registration in course 5.
3 units, autumn quarter (HENLINE, KINDY) MWF 1:05–4:05 or S 9–12
autumn, 44 Quiz by arrangement

26. Electricity Machinery Laboratory.
A course in the characteristic performance of standard electrical machinery and auxiliary apparatus. Prerequisites: courses 4, 5, 24, and 25.
4 units, winter quarter (HENLINE, KINDY) MWF 1:05–4:05 or S 9–12
winter (2 sections), 10, 28 Quiz by arrangement

40. High Voltage Laboratory Practice and Research.
Open only to Electrical Engineering majors.
5 units, autumn quarter (RYAN) By arrangement
autumn, 10

41. Thesis.
Subjects as approved for the individual Electrical Engineering majors.
4 units, winter quarter; 5 units, spring quarter (RYAN, CLARK)
autumn, 3; winter, 7; spring, 7

42. Research.
(RYAN, CLARK) By arrangement
autumn, 1; winter, 1; spring, 2

The Stanford Branch of the American Institute of Electrical Engineers is an organization authorized by the Institute and maintained by the students for the discussion of the Journal of the Institute, and other topics.

LABORATORY FEES.—$1 per unit of university credit.

SYLLABUS FEES.—Applicable to syllabus, lantern slides, and charts; 50c to $1 per course.

MECHANICAL ENGINEERING

†WILLIAM FREDERICK DURAND, WILLIAM RANKINE ECKART, EVERETT PARKER LESLEY, GUIDO HUGO MARX, Professors.

CHARLES NORMAN CROSS, Associate Professor.

LAWRENCE EDMINSTER CUTTER, HORATIO WARD STEBBINS, Assistant Professors.

ROBERT HENRY HARCOURT, JAMES BENNETT LIGGETT, THERON JAMES PALMATEER, EDWARD JOHN STANLEY, Teaching Specialists.

BOYNTON MORRIS GREEN, Instructor.

The following courses constitute the required work of a five years' curriculum leading to the degree of Mechanical Engineer. Students successfully completing the first four years of this curriculum with sufficient additional units for graduation will be granted the degree of Bachelor of Arts. It is expected that the supplementary courses neces-

† Absent on leave, 1921–22.

sary in order to obtain the number of units required for graduation will be elected in considerable degree among the other engineering courses offered in the department.

First Year.—Citizenship (12 units); Chemistry 1, 2, and *b* (9); Applied Mathematics 1*a*, 1*b* and 2*a* (15); Shopwork: M.E. 1, 3, and 6 (12).

Second Year.—Foreign Language (9 units); Physics 2*a* and 2*b* (8); Machine Sketching and Elementary Machine Drawing: M.E. 11 and 12 (6); Descriptive Geometry: Engineering 3 (4); Mining and Metallurgy 17 (3); Applied Mathematics 2*b*, 3*a* and 3*b* (15).

Third Year.—History (9 units); Physics 2*c* and 2*d* (8); Applied Mechanics and Hydraulics: Engineering 10 and 12 (10); Shopwork: M.E. 7 (4); Machine Design: M.E. 13 (8); English Composition 6.

Fourth Year.—Machine Design: M.E. 14 (8); Mechanical Laboratory: M.E. 21*, 22, and 23 (9); Technical Reports: M.E. 31 (3); Heat Engines: M.E. 32 and 33 (8); Electrical Machinery: E.E. 4, 5, 24, and 25 (10); Electrical Engineering: E.E. 7 and 26** (7).

Fifth Year.—Shop Administration: M.E. 10 (4); Advanced Machine Design: M.E. 16 (4); Mechanical Laboratory Work: M.E. 24, 25 (6); Applied Thermodynamics: M.E. 34 (4); Central Power Stations: M.E. 35 (3); Hydraulic Machinery and Power Stations: M.E. 35*b* (5); Pumping Machinery: M.E. 36 (3).

The above courses represent the requirements for the student entering with full entrance credit, including 1½ units in algebra, 1 unit in plane geometry, ½ unit in trigonometry, 1 unit in physics, 1 unit in chemistry, 2 units in one foreign language, 1 unit in history, 1 unit in biological or general science, ½ unit in mechanical or geometrical drawing, and ½ unit in woodwork. For those not bringing this measure of entrance credit the requirements will be correspondingly greater. There will be, in the usual case and especially for the student carrying more than the normal number of 15 units registration, a considerable amount of additional time for elective work in the various engineering departments or in other departments of the University. Students whose preparatory records show excellence, not only in mathematics and chemistry, but also in general training, may, with the approval of the instructor, omit Applied Mathematics, 1*a*, 5 units. For students offering entrance credit in Chemistry, courses 3, 4, and *b* in Chemistry (7 units) will be taken in place of 1, 2, and *b*, thus offering opportunity for two additional elective units.

* This course is elective for students who take 7 units of E. E. 7 and 26.
** Four units of this course is elective for those who take M. E. 21.

COURSES OFFERED

1. Forge Practice.

Three laboratory periods and one lecture per week. Required of Mechanical Engineering students.

4 units, autumn, *winter, and *spring quarters (HARCOURT) Lec. S. 9
autumn, 55; winter, 41; spring, 26

3. Foundry Practice.

Three laboratory periods and one lecture per week. One quarter (4 units) required of Mechanical Engineering students.

4 units, autumn, *winter, and *spring quarters (LIGGETT) Lec. S 8
autumn, 41; winter, 43; spring, 27

5. Woodworking (prerequisite for M. E. 6).

Three laboratory periods per week. One quarter (3 units) required of Mechanical Engineering students not having entrance credit in woodworking.

3 units, autumn, *winter, and *spring quarters (STANLEY)
autumn, 9; winter, 3; spring, 5

6. Pattern Making.

Three laboratory periods and one lecture per week. One quarter (4 units) required of Mechanical Engineering students.

4 units, autumn, *winter, and *spring quarters (STANLEY) Lec. S 8
autumn, 41; winter, 8; spring, 37

7. Elementary Machine Shop Practice.

Three laboratory periods and one lecture per week. Intended for upperclassmen only. One quarter (3 units) required of Mechanical Engineering students. Prerequisites: M. E. 1 and 3.

4 units, autumn, *winter, and *spring quarters (PALMATEER) Lec. S 9
autumn, 7; winter, 23; spring, 7

8. Advanced Machine Practice.

One to four laboratory periods per week. Prerequisite: M. E. 7.

1 to 4 units, autumn, *winter, and *spring quarters (PALMATEER) Lec. T 11
autumn, 6; winter, 4; spring, 2

10. Shop Administration.

A course of lectures on workship organization and administration, factory accounting, wage systems, selection of machinery, factory methods, etc. Prerequisites: courses 1 to 7 inclusive.

4 units, winter quarter (LESLEY) MTWTh 10
winter, 12

11. Freehand Machine Drawing.

Practice in making freehand sketches of machine parts, and their dimensioning in practical form for use in the shop, the sketches being made according to the principles of orthographic projection. The aim is to train the student in the reading of machine drawings through making a considerable number of sketches from actual machines and machine parts, and at the same time to familiarize him as much as possible with the actual machine parts. Open to all students, and required of students in Mechanical Engineering. (Nine hours a week.)

3 units, autumn and *spring quarters (CUTTER, GREEN)
autumn, 40; winter, 12 TTh 9–12; MTWThF 1:05–4:05

12. Elementary Machine Drawing.

Practice in making working drawings of machine parts, and in making tracings from these drawings. The purpose of the course is not only to train the student in the technique of drafting and dimensioning, but also to familiarize him with the elements of machines, and, therefore, no drawings are made from copy, but all are made from the student's own sketches of the actual model. (Six or nine hours a week in drafting room; three hours work for one unit credit.) Prerequisites: courses 1, 2, and 3 in Engineering, or their equivalents; and, for Mechanical Engineering students, course 11 in Mechanical Engineering.

2 or 3 units, autumn and *spring quarters (CUTTER, GREEN)
autumn, 23; spring, 42 TTh 9–12; MTWThF 1:05–4:05

13. Elementary Machine Design.

(*a*) Function of machines; motion, force, and work in machines; analysis of mechanism; velocity, acceleration, and effort diagrams; parallel motions; cams; ratchets; toothed wheels; valve gear analysis and design. The aim is, not merely to present a course in pure mechanism, or kinematics, but also—by the introduction of the consideration of force, work, and energy, as well as motion—to show the purposes for which the mechanisms are used and the manner in which they function. (Three hours a week, lectures and recitations, winter and spring quarters.) (3 units.) (*b*) Drafting course applying the principles treated in *a*. (Three hours a week drafting, winter and spring quarters.) (1 unit.) Prerequisites: course 12 in Mechanical Engineering and courses 1, 2, 3, and 4 in Engineering. Courses *a* and *b* must be taken together and are required of students in Mechanical Engineering.

4 units, winter and spring quarters (G. H. MARX, GREEN)
winter, 61; spring, 55 Lec. MWF 8; Dft. W 1:05–4:05

14. Machine Design.

Study of machine elements, such as bolts and screws; riveted joints and boiler design; keys, fits and fitting; axles, shafts, and spindles; journals, bearings, friction, and lubrication; ball and roller bearings; sliding surfaces; couplings and clutches; gear, belt, rope, and chain transmission systems; flywheels; brakes; springs; frames and supports; cylinders, etc.; leading to the design of complete simple machines. (Two hours a week recitations and lectures, six hours in the drafting-room, throughout the year.) Open to students who have completed course 13 in Mechanical Engineering, and who are taking courses 10 and 11 in Engineering; two quarters required of students in Mechanical Engineering.

4 units, autumn, winter, and spring quarters (G. H. MARX)
autumn, 48; winter, 50; spring, 13 Lec. TTh 8; Dft. TTh 1:05–4:05

16. Advanced Machine Design.

Design of complete machines. Students may elect machine tools, cranes, steam or gas engines, or special problems. (One lecture and nine hours drafting per week.) Intended for fifth-year students who have completed courses 14, 32, and 33.

4 units, autumn quarter (G. H. MARX, CUTTER, GREEN)
autumn, 5 Lec. F 10; Dft. 1:05–4:05 by arrangement

21. Valuation of Fuels and Oils for Engineering Purposes.

Includes determinations of the proximate analysis of coal; the calorific value of coals, fuel oils, and gas; the moisture contents of fuel oils; the density, viscosity, flash, burning, and chill points of oils, and the coefficient of friction of lubricated bearings. (One lecture, three hours in the laboratory, and five hours on reports per week.) Open to students who have completed courses Chemistry 1 and *b*,

Physics 2*a* and 2*b*, or 3*a* and 3*b*. Required of students in Mechanical Engineering. (Elective for students who take 7 units of courses E. E. 7–26.)

3 units, autumn quarter (STEBBINS) Lec. F 8; Lab. 1:05–4:05 by arrangement
autumn, 35

22. Calibration and Use of Engineering Instruments.

Including thermometers, gas and steam meters, planimeters, steam engine indicators, absorption brakes, transmission dynamometers, steam calorimeters, and flue gas analysis. (One lecture, three hours in the laboratory, and five hours on reports per week.) Open to students who have completed Chemistry 1 and *b*, Applied Mathematics 2*b*, and Physics 2*a* and 2*b*, or 3*a* and 3*b*. Required of students in Mechanical Engineering.

3 units, winter quarter (STEBBINS) Lec. Th 9; Lab. 1:05–4:05 by arrangement
winter, 35

23. Testing of Engines, Boilers, and Compressors.

Includes valve setting, mechanical efficiency, and economy tests of steam engines, tests of steam turbines, gas engines, boilers, and air compressors. (One lecture, three hours in the laboratory, and five hours on reports per week.) Open only to students who have completed Mechanical Engineering 32 (the first quarter of Heat Engines, 4 units); required of students in Mechanical Engineering.

3 units, winter quarter (for majors others than M. E.), and spring quarter (for M. E. majors) (STEBBINS) Lec. Th 9; Lab. 1:05–4:05 by arrangement
winter, 29; spring, 44

24. Testing of Hydraulic Machinery.

Includes tests of centrifugal, rotary, jet, and steam pumps, pulsometers, hydraulic rams, water wheels and hydraulic turbines. (One lecture, three hours in the laboratory, and five hours on reports per week.) Open to students who have completed Engineering 12*b* and Mechanical Engineering 23 and 32.

3 units, autumn quarter (ECKART) Lec. Th 8; Lab. 1:05–4:05 by arrangement
autumn, 20

25. Testing of Heat Exchangers and Power Plant Auxiliaries.

Includes tests of feed water heaters, economizers, condensers, injectors, blowers, turbo-compressors and refrigerating machinery. (One lecture, three hours in the laboratory, and five hours on reports per week.) Open to students who have completed courses 23 and 24.

3 units, winter quarter (ECKART) Lec. T 8; Lab. 1:05–4:05 by arrangement
winter, 12

26. Testing of a Complete Power Plant.

A comprehensive test which reviews and coördinates the work of courses M. E. 21, 22, 23, 24, and 25. The work includes the planning and arranging of all details, the calibration of all instruments, preliminary runs for valve and other adjustments in accordance with the code of the A. S. M. E. A final report to be made by the section as a whole, copies being prepared for each student and one for the laboratory files. Open only to students who have completed M. E. 22, 23, 24, and 25; will not be given unless at least six students register.

2 units, spring quarter (ECKART) By arrangement

28. Aerodynamic Laboratory.

Experimental investigation of airplane propellers and other aerodynamic problems.

3 units, autumn, *winter, and *spring quarters (LESLEY) By arrangement

30. Experimental Investigation of Mechanical Engineering Problems.

Open to all students who have completed courses 21, 22, and 23 and whose work has indicated their ability to carry on successfully advanced work of this nature.

3 to 6 units, autumn, *winter, and *spring quarters (Eckart, Stebbins)
autumn, 1; spring (2 groups), 1, 1 By arrangement

31. Engineering Reports and Specifications.

Practice writing, with occasional lectures. Required of fourth-year students in Mechanical Engineering.

3 units, autumn and *spring quarters (Lesley) Lec. TTh 9
autumn, 20

32. Heat Engines.

Mechanical theory of heat and its applications. Fourth-year students in Mechanical Engineering.

4 units, autumn quarter (Cross) Lec. MWF 10; office work as arranged
autumn, 91

33. Heat Engines.

Continuation and application of course 32. (Three lectures and three hours office work per week.) Required of fourth-year students in Mechanical Engineering.

4 units, winter quarter (Cross) Lec. MWF 10; office work as arranged
winter, 69

34. Applied Thermodynamics.

Continuation of courses 32, 33. Irreversible operations, flow of gases and vapors, design of turbine nozzles. Application of thermodynamic theory to advanced and special problems. Prerequisite: course 32. Required of fifth-year students in Mechanical Engineering. (Two lectures and three hours office work per week.)

4 units, spring quarter (Cross) Lec. MWF 10; office work as arranged
spring, 7

35. Central Power Stations.

Study of the principal problems presented by the design and operation of modern central power stations driven by heat prime movers. (Two lectures and three hours office work per week.)

3 units, autumn quarter (Cross) Lec. TTh 9; office work as arranged
autumn, 7

35b. Hydraulic Machinery and Power Stations.

Elements of hydraulic machinery with special reference to prime movers. Elements of the design of hydraulic power stations with special reference to modern hydro-electric practice; general control of water in tunnels and penstocks, surge chamber, control of surges and shocks, valves and regulating devices, penstocks and their installation, selection of units, characteristics of impulse and reaction types, speed regulation, installation tests, and special problems. Prerequisite: Engineering 12. (Four lectures and three hours office work per week.)

5 units, spring quarter (Eckart) Lec. MTWTh 9; office work as arranged
spring, 23

36. Pumping Machinery.

Discussion of the principal problems arising in the design and operation of pumping machinery of various types, direct, centrifugal, rotary, propeller; and for various purposes, general service, boiler feed, fire service, mine drainage, irrigation,

municipal supply, oil line service, etc. (Two lectures and three hours office work per week.) Prerequisites: courses 32, and Engineering 12.

3 units, winter quarter (Cross) Lec. TTh 9; office work as arranged
winter, 27

40. Theory of Flight.

Discussion of elementary principles and application to the chief problems arising in the theoretical discussion of the flight of air-craft heavier than air. (Two lectures, with collateral problems.)

2 units, winter quarter (Durand) [Not given in 1921–22]

51. Thesis.

Investigation of some engineering problem. Required of candidates for degree of Engineer.

2 to 15 units, autumn, *winter, and *spring quarters (The Staff)
autumn (2 groups), 1, 1; winter (2 groups), 3, 2; spring, 4 By arrangement

Fees: Courses 1, 3, 7, $10 each; courses 5, 6, $8 each; course 8, $2 per credit hour; course 26, $3; courses 21, 22, 23, 24, and 25, $5 each; course 30, $1.50 per credit hour; courses 35, 36, 50c each.

ENGLISH

Raymond Macdonald Alden, †William Herbert Carruth, John S. P. Tatlock, Professors.

Karl Young, Acting Professor (Summer Quarter).

William Dinsmore Briggs, Henry David Gray, Samuel Swayze Seward, Jr., Associate Professors.

Howard Judson Hall, †Arthur Garfield Kennedy, Edith Ronald Mirrielees, Frances Theresa Russell, Assistant Professors.

Alexander Brede, Lawrence Bergmann Wallis, Instructors.

Leonard Aho, Claire Soulé Seay, George Pope Shannon, Benjamin Franklin Sisk, Assistants in Instruction.

Requirements for the Degree of Bachelor of Arts

(*a*) The courses ordinarily prescribed in the major subject include Chaucer, Shakespeare (Courses 25 and 59), the advanced courses (81, 82, 83, 84) in the History of English Literature (four quarters), and an advanced course in a single author (as Milton, Wordsworth, or Spenser), besides such preliminary courses in composition, vocal expression, or literature as may be advised in individual cases. In the advanced courses in English Literature one of two substitutions may be made: (*a*) for course 82, the course in Elizabethan Drama (70); or (*b*) for course 83, the course in Modern English Fiction (68). (For

† Absent on leave, 1921–22.

the requirements in the case of students making English their major subject with special reference to public speaking or journalism, see below under the Divisions of Public Speaking and Journalism.)

(*b*) It is required also that each student pursue work in one foreign language and literature sufficiently for the accomplishment of two ends, (1) a practical reading knowledge of the language chosen, and (2) some acquaintance with its most important literature. This requirement is not primarily a matter of formal credit-hours, but will ordinarily be found to demand a minimum of 24 units of college work in the chosen language, aside from elementary courses (two years in the high school or one in the University). Students should be sure that their language studies are so planned as to accomplish the ends desired. Introductory courses in Latin and Greek, if pursued in the University, will be counted as college work. Those who make Latin or Greek their principal language are advised, in general, to include two years of work in a modern language among their elective studies; and those who have chosen a modern language are encouraged to include among their elections two years of work in Latin or Greek.

(*c*) A course in English History is also prescribed for those who have not had a separate course in the subject in the high school.

The Teacher's Recommendation.—The High School Teacher's Certificate is granted by the State to students who have fulfilled the State requirements as set forth in the *Information* Bulletin, involving for applicants without experience one full year of graduate study. Recommendation by the department is granted by vote to students whose work has been of high character. It should be distinctly understood that a mere passing grade does not entitle a candidate to the endorsement of the department. For major students of the department the courses prescribed, in addition to those required for the degree of A. B., are the History of the English Language (56), Versification (99), Teachers' English (98), and graduate courses amounting to not less than nine units. For the courses required of students of other departments who seek a recommendation in English, as a major or minor subject, see the *Announcement of the School of Education.*

Advanced Degrees

The candidate for the Master's degree in English must have: (1) The equivalent of the requirements for the A. B. degree in English; (2) an elementary knowledge of Old English; and (3) a reading knowledge of two foreign languages (preferably one ancient and one modern). The work for the degree must occupy at least one full year of graduate study in residence, the greater part in English, the remainder in related

fields. The courses in English will be divided between the earlier and later periods. The candidate must present a thesis prepared under the direction of a member of the department and demonstrating the candidate's power of concentrated, independent study; this thesis may be accepted in lieu of not more than nine units of the work in the course. In addition, there is a general examination on English literature.

For the conditions of acquiring the Doctor's degree, see the *Graduate Study* Bulletin.

Preliminary and General Courses

[In general, courses 9–15 are open to first-year students; courses 22–29 are open to second-year students.]

A. Elementary Composition.

A one-quarter course required of all first-year undergraduates who do not pass the matriculation test in English.

1 unit, autumn, *winter, and *spring quarters (Seward and others) TThS 8; MWF 8, 9, 1:05

autumn (5 sections), 34, 30, 35, 36, 33; winter (3 sections), 13, 24, 30; spring (4 sections), 16, 13, 27, 15; summer, 31

[For each student in course A, except in case of those who meet the requirement within a short time, a fee of $10 is charged.]

2. English Composition.

(*a*) Narration and Description. (*b*) Exposition.

3 units, any two quarters (Seward, Hall, Mirrielees and others) TThS 8; MWF 8, 9, 1:05

autumn (11 sections), 22, 23, 23, 25, 23, 22, 26, 52, 24, 25, 24; winter (11 sections), 23, 26, 27, 23, 27, 30, 23, 51, 22, 23, 25; spring (12 sections), 20, 25, 21, 27, 24, 27, 14, 26, 22, 26, 21, 24; summer (2 sections), 26, 25

9. American Literature.

(*a*) To the Civil War (first quarter). (*b*) From the Civil War to the present (second quarter). Either quarter may be taken separately. Not open, except by special permission, to students having entrance credit in American literature.

5 units, autumn quarter; 3 units, winter quarter (Hall)
autumn, 45; winter, 40 (autumn) MTWThF 11; (winter) MWF 11

10. English Masterpieces.

A study of representative works of important English writers, with assigned reading and writing. May be taken two quarters, to the extent of eight units of credit. Open to other than first-year students only by permission.

3 units, autumn and spring quarters; 5 units, winter quarter (Mirrielees, Wallis) (autumn, spring) MWF 8, 9; (winter) MTWThF 11

autumn (2 sections), 27, 25; winter (2 sections), 23, 24; spring (2 sections), 73, 66

11. Introduction to Poetry.

A study of the nature, methods, and forms of poetry, with exercises in analysis and interpretation. Open to students of all departments; to seniors only with reduced credit.

4 units, winter quarter (Alden) MTWF 11
winter, 17

12. Introduction to Essay Reading.

4 units, spring quarter (Russell) MTWF 11
spring, 28

14. Tennyson.

A study of selected portions of Tennyson's poems, illustrating the growth of his literary art. A general course, designed for first- and second-year students, and open to third- and fourth-year students by permission only.

4 units, summer quarter (HALL) MTWF 9
summer, 27

22. Victorian Prose.

A study of selected Victorian prose writers.

3 units, winter quarter (SEWARD) MWF 10
winter, 9

23. Victorian Poetry.

A study of selected Victorian poets.

3 units, spring quarter (SEWARD) MWF 10
spring, 12

24. English Bible.

Representative portions of the Old Testament studied as literature.

3 units, autumn quarter (GRAY) MWF 11
autumn, 24

25. Shakespeare.

An introduction to Shakespeare, with rapid reading of a considerable number of the plays in chronological sequence. Open to all second-year students; continued, for third- and fourth-year students, in course 59.

4 units, spring and summer quarters (ALDEN, GRAY)
spring, 48; summer, 21 (spring) MTWF 9; (summer) TWThF 10

27. Browning.

An introductory course, open to all students.

3 units, one quarter (RUSSELL) [Not given in 1921–22]

29. Outline History of English Literature.

A condensed chronological survey, designed primarily for second-year students who intend to make English their major subject.

5 units, spring quarter (BUCKINGHAM) MTWThF 11
spring, 15

ADVANCED AND SPECIAL COURSES

[Unless otherwise specified, the following courses are open to third-year and fourth-year students of all departments.]

30. Advanced Composition.

A course intermediate between the elementary and the more specialized branches of written expression. Practice in various forms, with formulated criticism and illustrative reading.

4 units, autumn and winter quarters (RUSSELL) MTWF 9
autumn, 28; winter, 23

31. Exposition.

An advanced course, intended primarily for students in scientific and professional lines. Special attention will be given to students preparing theses or other papers. Prerequisite: course 2 or equivalent.

3 units, winter quarter (HALL) MWF 9
winter, 5

32. Argumentation.

The theory of argumentation, with practice in the preparation of briefs and in the writing of arguments, together with a critical analysis of argumentative masterpieces. Open to all students who have made a satisfactory grade in English 2.

5 units, autumn quarter (EMERSON) MTWThF 10
autumn, 12

34. Dramatic Composition.

The principles of dramatic writing developed in connection with the student's own work. Enrollment limited; students must submit specimens of their work in advance. May be taken for any quarter or throughout the year.

3 units, autumn, winter, and spring quarters (GRAY) MWF 1:05
autumn, 6; winter, 9; spring, 8

35. Prosody and Verse Writing.

Study of lyric poems, with practical exercises in the same. Open by permission to second-year students who have had six units in English composition.

3 units, one quarter (CARRUTH) [Not given in 1921–22]

36. Short Story Writing.

Practice in the writing of short stories, and a study of the principles governing their composition. Open to students who have completed two quarters of English 2.

3 units, winter and spring quarters (MIRRIELEES) MTW 9
winter, 20; spring, 15

37. Essay Writing.

Preparation of magazine articles, criticisms, and papers of both informal and analytical character. Prerequisite: course 2.

4 units, spring quarter (RUSSELL) MTWF 10
spring, 26

39. Free Reading.

Eight hours of reading weekly, with informal class reports and discussion. The course furnishes an opportunity for students to read books with which they should be familiar but which are not assigned in connection with their other courses. Open to a limited number of upper-class students from other departments; not to English majors. May not be taken for more than two quarters.

2 units, any quarter (GRAY and others) MT 4, 5
autumn (12 groups), 7, 7, 8, 7, 7, 7, 6, 8, 7, 7, 7, 6; winter (11 groups), 7, 6, 15, 7, 7, 9, 6, 7, 6, 6, 5; spring (10 groups), 6, 12, 6, 4, 5, 6, 6, 5, 6, 5

54. The Short Story.

A study of the short story in English, with especial attention to its development during the nineteenth century.

5 units, autumn quarter (MIRRIELEES) MTWThF 8
autumn, 32

56. The History of the English Language.

4 units, winter quarter (SEWARD) MTWF 9
winter, 11

58. Chaucer.

An elementary course, including an outline of Middle English grammar for the beginner. Open to third-year students who have a reading knowledge of one foreign language.

3 units, autumn quarter (ALDEN) MWF 11
autumn, 37

59. Shakespeare.

A continuation of course 25, devoted to the more intensive study of a few plays. Designed primarily for English major students in their third year; open to others on recommendation from course 25.

3 units, autumn quarter (GRAY) MWF 10
autumn, 31

60. Spenser.

3 units, winter quarter (BRIGGS) MWF 9
winter, 10

61. Milton.

3 units, one quarter (BRIGGS) [Not given in 1921–22]

62. Wordsworth.

3 units, one quarter (HALL) [Not given in 1921–22]

63. Browning.

3 units, autumn quarter (RUSSELL) MWF 10
4 units, summer quarter (YOUNG) TWThF 9
autumn, 7; summer, 15

65. Introduction to Comparative Literature.

An exposition of the comparative method in literary study, with a survey of the distribution of types in world literature. Open to third-year and fourth-year students who have had not less than fifteen units in English literature.

3 units, one quarter (CARRUTH) [Not given in 1921–22]

66. National Epics.

Reading in translation of the Mahabharata, the Iliad, the Aeneid, the Beowulf, the Song of Roland, the Nibelungenlied, and the Kalewala. Open also to graduates.

4 units, one quarter (CARRUTH and others) [Not given in 1921–22]

67. The History of Prose Fiction.

Including the beginnings of English fiction to DeFoe.

3 units, one quarter (CARRUTH) [Not given in 1921–22]

68. English Fiction.

A course in the history of English fiction from DeFoe through the major novelists of the nineteenth century.

5 units, winter quarter (BRIGGS) MTWThF 10
winter, 45

69. The Modern Novel.

Lectures on European fiction from 1856 to the present time, with the reading of representative novels and reports upon them. Open to third-year and fourth-year students of all departments.

3 units, winter and spring quarters (GRAY) MWF 10
winter, 28; spring, 48

70. The English Drama to 1642.

The beginnings and development of the drama.

5 units, summer quarter (BRIGGS) MTWThF 11
summer, 12

71. Modern Drama.

A study of Ibsen and of contemporary dramatists. Open to third-year and fourth-year students of all departments.

5 units, one quarter (GRAY) [Not given in 1921–22]

73. Contemporary Poetry.

A survey of English and American poetry since 1890, with especial attention to the poetic revival of the present time.

3 units, one quarter (GRAY) [Not given in 1921-22]

74. The English Essay.

A study of the Essay as a type, from Bacon to the twentieth century.

3 units, one quarter (RUSSELL) [Not given in 1921–22]

75. Contemporary Essayists.

An examination of such writers as have made a distinctive contribution to present-day thought. Lectures and assigned readings.

4 units, one quarter (RUSSELL) [Not given in 1921–22]

80. Old English Literature to 1066.

Survey with lectures and reading in translation.

3 units, one quarter (KENNEDY) [Not given in 1921–22]

81. Medieval Literature, with special reference to Middle English.

Special attention is paid to the literary relations of England and France from the Anglo-Saxon period to the sixteenth century. The course will serve as a general introduction to medieval European literature, which is studied by types: romances, histories, visions, lyrics, fabliaux, etc. This course is continued in No. 109.

3 units, winter quarter (TATLOCK) MTWF 11
winter, 29

82. English Literature from 1557 to 1700, exclusive of the Drama.

Primarily for fourth-year students of the English Department.

4 units, spring quarter (BRIGGS) MTThF 11
spring, 43

83. English Literature from 1700 to 1780.

Primarily for third-year students of the English Department.

4 units, one quarter (HALL) [Not given in 1921–22]

84. English Literature from 1780 to 1832.

A continuation of course 83.

4 units, winter quarter (HALL) MTWF 8
winter, 39

86. Criticism (Undergraduate Seminary).

A course in the practical analysis and valuation of recent literature; book reviews and discussions. Limited to eight seniors, admitted from any department on recommendation.

3 units, one quarter (ALDEN) [Not given in 1921–22]

[The following courses are designed for both graduate and advanced undergraduate students; with the exception of course 98, they are accepted as graduate courses in the program of candidates for advanced degrees.]

89. American Colonial Literature.

A research course. Prerequisites: American History and Eighteenth Century English Literature.

4 units, autumn and summer quarters (HALL) MW 2–4
autumn, 2; summer, 7

90. American Poetry, exclusive of the Drama.

A study of the greater American poets with especial reference to their relation to English and Continental literature.

4 units, one quarter (CARRUTH) [Not given in 1921–22]

92. Old English.

Elements of Old English grammar, with reading exercises.

4 units, spring quarter (TATLOCK) MTThF 9
spring, 12

93. Beowulf.

4 units, one quarter (KENNEDY) [Not given in 1921–22]

94. Middle English Readings.

3 units, summer quarter (TATLOCK) MWF 2
summer, 13

95. The Bible in Early English.

Lectures, with readings in translation.

3 units, one quarter (KENNEDY) [Not given in 1921–22]

96. Ballads.

4 units, one quarter (BRIGGS) [Not given in 1921–22]

97. Ideal Commonwealths.

A study of the Utopian idea and related social and political conceptions, as expressed in literature.

3 units, winter quarter (RUSSELL) MWF 11
winter, 7

98. Teachers' Course in English.

A study of the methods of teaching composition and literature in secondary schools.

3 units, autumn and winter quarters (SEWARD) T 10; Th 2–4
autumn, 9; winter, 12

99. Versification.

An introduction to the theory of rhythm and meter, the history of English prosody, and the problems of reading and teaching verse. Open to fourth-year students and graduates; to third-year students by special permission.

3 units, autumn quarter (ALDEN) MWF 9
autumn, 19

GRADUATE COURSES

101. Introduction to English Philology and Bibliography.

3 units, autumn quarter (KENNEDY) [Not given in 1921–22]

102. Satire.

A study of the satiric element in literature, exemplified by some particular phase selected for specialization.

4 units, autumn quarter (RUSSELL) MW 2–4
autumn, 11

103. Tragedy.

A comparative study of the theory and practice of tragedy in various literatures.

4 units, winter and summer quarters (ALDEN) T 2–4, F 10
winter, 11; summer, 13

104. Comedy.

An inquiry into the nature of the comic and into its literary uses, as exemplified especially in the drama.

4 units, autumn and winter quarters (SEWARD) MTWTh 11
autumn, 6; winter, 6

105. Elizabethan and Seventeenth Century Lyric.

Special emphasis is laid on the sonnets of Shakespeare and his contemporaries, and on the religious lyric of the age of Herbert.

4 units, one quarter (ALDEN) [Not given in 1921–22]

106. Critical Theories.

A study of the principal critical writings of the age of Coleridge, with special reference to the theory of poetry.

3 units, autumn quarter (ALDEN) T 2–4, F 10
autumn, 9

107. Tennyson.

The Idylls of the King compared with their sources.

3 to 5 units, one quarter (CARRUTH) [Not given in 1921–22]

108. The Hildebrand Theme in General Literature.

A study of the sources and migration of epic themes.

3 units, one quarter (CARRUTH) [Not given in 1921–22]

109. Medieval Literature.

A continuation of course 81, but may be taken by students who have not had the latter. Especial attention is paid to Dante and Chaucer.

3 units, one quarter (TATLOCK) [Not given in 1921–22]

110. Chaucer (advanced course).

The Canterbury Tales, or the Troilus, will be studied, with attention to the structure and history of the work and its literary significance. Open to fourth-year students.

4 units, spring quarter (TATLOCK) By arrangement
spring, 7

111. Shakespeare.

An introduction to the bibliography of the subject, the history of the text, and methods of critical study.

4 units, one quarter (ALDEN) [Not given in 1921–22]

112. Shakespeare.

A critical study of one or more plays. In 1921–22, Macbeth and The Tempest; in 1922–23, King Lear.

4 units, winter quarter (GRAY) M 2:05–4:05, and a third hour by arrangement
winter, 11

113. Marlowe.

4 units, one quarter (BRIGGS) [Not given in 1921–22]

114. Jonson.

4 units, two quarters (BRIGGS) [Not given in 1921–22]

115. Elizabethan Drama Seminary.
4 units, one quarter (Gray) [Not given in 1921–22]

116. The Life and Thought of the 16th Century.
(*a*) Social Forces and Conditions of Life in 16th Century England. (*b*) The Problem of Authority in the 16th Century.
4 units, spring quarter (Briggs) By arrangement
spring, 7

117. Journal Club.
Reports on current literature by the members of the class.
2 units, winter and spring quarters (Carruth, Kennedy)
[Not given in 1921–22]

118a. Early English Seminary.
Legendary history of Britain.
3 units, summer quarter (Tatlock) By arrangement
summer, 4

118b. Early English Seminary.
The Siege of Troy in English Literature.
3 units, one quarter (Tatlock) [Not given in 1921–22]

121. Medieval Drama.
The development of modern drama from the liturgy of the Church, Biblical plays, moral plays, and the transition to Elizabethan drama.
4 units, summer quarter (Young) TTh 2–4
summer, 10

DIVISION OF PUBLIC SPEAKING

Lee Emerson Bassett, Professor.
Elisabeth Lee Buckingham, Assistant Professor.
James Gordon Emerson, Acting Assistant Professor.
Gordon Arthur Davis, Instructor.
William Manford Michael, Ralph S. Scott, Assistants in Instruction.

Students who give evidence of special aptitude for the subject may elect English as their major department in special preparation for professional work in the practice or teaching of public speaking. Such students will register with the members of this Division as their advisers; they will meet the same requirements as other major students in English (see page 179 above), except that they may substitute work in public speaking, to the amount of 8 units, for advanced courses in literature. Those who wish special training for public speaking and platform work will ordinarily be expected to complete courses 4, 5, 7, 8, 19*a*, 32, 49, and 52; those expecting to teach the subject, courses 4, 5, 19*a*, 19*b*, 21, 32, 49, 51, 52, 53.

[Note: *All courses in public speaking are open to but a limited number of students.* Application should be made on registration day, and the instructor reserves the right to refuse to enroll students who do not appear at the first meeting of the class. In general, courses 4 to 6 are open to first-year students; courses 7 to 21*b* to second-year students.]

4. Vocal Expression.

A study of the principles of oral expression and the vocal interpretation of masterpieces in prose and poetry, with supplementary work in voice development. Each student is expected to memorize and vocally interpret 350 lines of Shakespeare during the quarter. Two sections.

4 units, autumn, *winter, and *spring quarters (BUCKINGHAM) TWThF 8, 11
autumn (2 sections), 21, 23; winter (2 sections), 25, 13; spring, 27; summer (2 sections), 31, 25

5. Reading Aloud.

The oral rendering of various forms of literature. Particular attention will be given to rhythm, time, melody, quality, and other musical elements of verse. Assignments for general class practice and for individual study and rendition. Prerequisite: course 4, or its equivalent.

3 units, autumn and *spring quarters (BUCKINGHAM) MWF 9
autumn, 18; spring, 28

6. Practical Phonetics.

A course in the enunciation and pronunciation of the English language. Designed especially for foreign students.

1 unit, winter quarter (BASSETT) T 1:05
winter, 7

7. Extemporaneous Speaking.

Practice in extemporaneous speaking on subjects of current interest, with attention to the preparation of speech outlines. Should preferably be preceded by course 4.

3 units, autumn, *winter, and *spring quarters (BASSETT, EMERSON, MICHAEL, SCOTT) MWF 9, 10, 11, 1:05
autumn (3 sections), 23, 20, 11; winter (3 sections), 16, 22, 28; spring (2 sections), 21, 29; summer, 24

8. Public Speaking.

Practice in the preparation and delivery of speeches adapted to various audiences and occasion, with attention to the style of spoken discourse. Prerequisite: course 7.

3 units, autumn, *winter, and *spring quarters (BASSETT, EMERSON) (autumn) MWF 9, (winter and spring) MWF 10

18a. Reading and Staging Plays.

3 units, summer quarter (BUCKINGHAM) MWF 10
summer (2 groups), 8, 10

19a. Vocal Interpretation.

The oral interpretation of literature, both prose and poetry. Prerequisite: courses 4 and 5.

3 units, spring quarter (BASSETT) [Not given in 1921–22]

19b. Vocal Interpretation: Dramatic Literature.

The study of short plays of literary and dramatic merit for presentation before the class. Parts will be assigned. Attention will be given to characterization and action.

3 units, autumn quarter (DAVIS) T 1:05; Th 1:05–3:05
autumn, 23

20. Practical Debate.

Under supervision of the department those students who work on intercollegiate debate questions may receive credit upon satisfactory completion of the work.

1 or 2 units, any quarter except summer (EMERSON) By arrangement
autumn, 7; winter, 7; spring, 4

21a. The Theater.

An historical survey of the origin and development of the theater, its social function and significance, and a study of various kinds of theaters.

3 units, winter quarter (Davis) T 1:05; Th 1:05–3:05
winter, 45

21b. Theatrical Workshop.

A theatrical laboratory for advanced students in the production of one-act plays for public presentation. Particular attention will be given to the construction and designing of stage scenery, and to costuming, lighting, acting, and stage direction.

3 units, spring quarter (Davis) T 1:05; Th 1:05–3:05
spring, 35

33. Court Room Forensics.

An analysis of forensic masterpieces together with practice in the organization and presentation of court room speeches. Open to fourth-year law students who have a satisfactory grade in courses 7 and 32.

3 units, spring quarter (Emerson) [Not given in 1921–22]

49. Voice Training.

Lectures on the voice, with class exercises.

1 unit, autumn quarter (Bassett) T 1:05
autumn, 20

50. Public Speaking.

A course in the study of speech composition based on analyses of representative speeches of various types. Prerequisite: courses 7 and 8.

3 units, winter quarter (Bassett) MWF 10
autumn, 18; winter (2 sections), 17, 17; spring, 14; summer, 13

51. Public Reading.

A course in the preparation of poems, stories, and scenes from novels and plays for public presentation. Prerequisites: courses 4, 5, 19*a*, and 19*b*.

2 units, autumn quarter (Bassett) T 2:05–4:05
autumn, 6

52. Oral Debate.

Practice in the preparation and delivery of oral arguments, chiefly on current public questions. Prerequisite: course 32.

2 units, winter and spring quarters (Emerson) W 2:05–4:05
winter, 15; spring, 18

53. Teachers' Course in Oral Expression.

2 units, winter quarter (Bassett) T 2:05–4:05
winter, 9; summer, 9

DIVISION OF JOURNALISM

Everett Wallace Smith, Associate Professor.
Paul Hibbert Clyde, Instructor.
John Jay Cuddy, Lecturer in Advertising.

The Journalism curriculum is based on the conviction that the proper college preparation for journalism is a broad course with a preponderance of English, history, economics, and political science. The Lower

Division work provides an excellent foundation for such a course, the requirements bringing the student into contact with a wide variety of subjects, and with the electives enabling him to begin to develop his studies in English, history, economics, and political science, which are fundamental to journalism.

The special journalism subjects, with the slight exceptions noted, are offered only to upper division students, and the greater part of the time of such students will be devoted to non-technical subjects, students of journalism being required to specialize particularly in the work of one of the departments of English, history, economics, or political science. To this end, they will make one of these their major department, will be subject to the direction of the major department in conjunction with the instructors in the Division of Journalism, and will meet the usual requirements of the particular department excepting where otherwise stated. They will be classified and their diplomas marked, if so desired, "English (Economics, History, Political Science) preparatory to Journalism."

Intending journalists are encouraged to engage in college journalism and thus to obtain practical experience during their course. When done systematically and under the supervision of the Division of Journalism, such work will be given credit towards graduation.

First- and second-year students who are members of the staff of the Daily Palo Alto or reporters on other newspapers will be admitted to the class in Practical Reporting for one unit of credit per quarter, provided they attend the special lectures given in connection with that course which deal with principles and practice in newspaper work. First- and second-year students may also be admitted to the course in Editorial Management, provided they meet the requirements.

In some of the journalism courses the written work must be done on the typewriter. On this account, and because ability to use the typewriter is necessary for practically all newspaper work, prospective journalism students are advised to gain this ability as early as possible.

To students making English their major subject in preparation for journalism the department offers a variety of courses in advanced and specialized composition and in English language and literature. Such students will meet the following requirements:

(1) A minimum of 30 units of Journalism, including News Writing (10 units); Copy Reading (5 units); Editorial Writing or Feature Article Writing (5 units); American Journalism (3 units).

(2) A minimum of 30 units of English department courses. At least 25 of these 30 units shall be selected from the following groups of

courses, with a minimum of 10 units from group II, and a minimum of 6 units from group III:

GROUP I

9. American Literature	8 units	25. Shakespeare	4 units
22–23. Victorian Literature	6 units	29. Outline History	5 units
24. Bible	3 units		
			26 units

GROUP II

56. English Language	4 units	68. English Fiction	5 units
58. Chaucer	3 units	74. English Essay	3 units
59. Shakespeare	3 units	81. Medieval Literature	4 units
60. Spenser	3 units	82. Literature, 1557–1700	4 units
61. Milton	3 units	83. Literature, 1700–1780	4 units
62. Wordsworth	3 units	84. Literature, 1780–1832	4 units
65. Comparative Literature	3 units		
			46 units

GROUP III

54. Short Story	5 units	75. Essayists	3 units
69. Modern Novel	6 units	86. Criticism	3 units
71. Modern Drama	5 units		
			22 units

(3) A knowledge of a modern foreign language sufficient to insure the rapid translation of current literature in that language.

(4) In history, a minimum of 20 units, including, besides Lower Division requirements in American history, either England since 1485 or Europe since 1815.

(5) In economics and political science, a minimum of 20 units, with course 2 in Political Science (State and Local Government) strongly recommended.

(6) In addition, such courses as those in advertising, logic, argumentation, general psychology, and advanced composition, according to the particular interests and needs of the individual students.

Courses in Journalism

17a. News Writing.

Study of the structure of the news story and of news value, with practice in writing. Sources of news and methods of news gathering. Newspaper organization and news-gathering organizations. All writing in the course must be done on a typewriter.

5 units, autumn and winter quarters (Smith) MTWThF 8
5 units, autumn quarter (Clyde) MTWThF 9
autumn, 22; winter, 20

17b. Copy Reading.

A continuation of course 17*a*. Writing of more difficult news stories. Copy reading, headline writing, and proof-reading, with some attention to the mechanical operations of newspaper production.

5 units, spring quarter (Smith) MTWThF 8
spring, 11

40. Editorial Writing.

Study of the function of the editorial, with practice in writing.

5 units, winter quarter (Smith) MTWThF 11
winter, 6

41. The Feature Article.

Study of the feature article for newspapers and magazines, with practice in writing.

5 units, spring quarter (SMITH) MTWThF 11
spring, 20

43. American Journalism.

A survey of the development of American newspapers, and a study of the work and influence of outstanding journalists.

3 units, autumn quarter (SMITH, CLYDE) MWF 11
autumn, 5

44. Practical Reporting.

Practical work in news gathering and writing for The Daily Palo Alto and other newspapers, with conferences. Primarily for journalism major students and those who intend to become such; others may be admitted by special permission.

1 or 2 units, autumn, winter, and spring quarters (SMITH, CLYDE)
autumn, 27; winter, 25; spring, 27 By arrangement

45. Editorial Management.

Practical advanced work on the editorial staffs of campus publications, with conferences.

2 or 3 units, autumn, winter, and spring quarters (SMITH, CLYDE)
autumn 13; winter, 10; summer, 1 By arrangement

46a. Advertising.

Principles and practice of advertising. A study of its history and development into the social and economic force that it is today. The aim of the course is to give to students who are training for journalism, and to others who expect to go into business, a clear idea of what advertising is and how it works, together with some fundamental principles of its use. Intended primarily for fourth-year students.

5 units, autumn quarter (CLYDE, CUDDY) MTWThF 10
autumn, 100

46b. Advertising.

A more detailed study of current advertising plans and practice. The course is planned to give to students who have had course 46*a* the benefit of a more critical study of current advertising practice and experience in both local and national advertising fields. Some study will be given to the mechanics of advertising and the writing of advertising copy. Open only to students who have had course 46*a*.

3 units, winter quarter (CLYDE, CUDDY) MWF 10
winter, 36

GEOLOGY

JAMES PERRIN SMITH (Paleontology), AUSTIN FLINT ROGERS (Mineralogy), CYRUS FISHER TOLMAN, JR. (Economic Geology), BAILEY WILLIS (Geology), Professors.

SOLON SHEDD, Acting Associate Professor (Autumn and Summer Quarters).

The Department of Geology offers training in preparation for the profession of geologist or geologic engineer. It also offers the pre-

mining courses necessary for entrance into the graduate Department of Mining and Metallurgy. Choice of these courses is directed by coöperation of the two allied departments. The curriculum is so arranged that in the junior and senior years the students divide naturally into two groups; one going into advanced studies in various branches of geology, the other going more into engineering studies in preparation for the professional work of mining.

Students intending to pursue their major subject in the Department of Geology should offer as a part of their entrance preparation trigonometry, advanced algebra, physics, and chemistry; otherwise the mathematics, physics, and chemistry must be taken in the University.

Courses of study in the Department of Geology lead to the degree of Bachelor of Arts on completing four years of study, or the equivalent of one hundred and eighty units of credit. The degree of Master of Arts may be secured at the close of the fifth year's work, including a thesis, in accordance with the regulations of the University. The degree of Doctor of Philosophy is given on completion of the required additional work under the conditions stated in the *Register*. The requirement that the work shall be done in residence may in part be waived on recommendation of the department when the needs of original investigation cannot be met at the University.

Courses of Study

The following is a list of the studies offered in the department. They are grouped under the heads of Geology, Mineralogy, Economic Geology, and Paleontology. Certain elementary courses in the department are required of all students, as indicated: Geology 1; Economic Geology 1, 2; Mineralogy 1; Paleontology 2, 3. In addition to these, Civil Engineering 20, 21 (Surveying), and two years of either French or German are required of all students. (A year of Spanish may be substituted for the second year of either language.) Other courses are elective, except that no study may be taken without proper preparation, and should be selected only after conference with the instructors. At least sixty units of work in the department will be required for the degree of Bachelor of Arts. A part of these may be taken, upon consultation, in the Department of Mining and Metallurgy.

GEOLOGY

Geography 1: Physical Geography.

A lecture course on the aspects of the earth, treating of the facts, causes, and laws of physical geography; intended to give the student a knowledge of the physical world as the abode of man. Open to students from all departments.

1a. First Half of Geography 1.

Three units, lectures only with assigned readings, or five units, lectures and problems. The three-unit lecture course presents the general features of the earth, an outline of meteorology and climate, and an analysis of the physiographic divisions of the United States. The five-unit course includes the above together with special studies adapted to the needs of groups of students in Engineering or other branches.

3 (or 5) units, autumn, *winter, and *summer quarters (winter, WILLIS; summer and autumn, SHEDD) Lec. MWF 8; Lec.-Probs. MTWThF 8
autumn, 101; winter, 108; summer, 44

1b. Second Half of Geography 1.

Three units, lectures only with assigned readings, or five units, lectures and problems. Course 1*b* is a continuation of course 1*a*, but credit will be given for each half separately. Course 1*a* or its equivalent is a prerequisite to course 1*b*.

3 (or 5) units, spring quarter (WILLIS)
spring, 61 Lec. MWF 8; Lec.-Probs. MTWThF 8

Geology 1 and 2: Dynamical Geology.

This is designed to be a technical course in dynamical geology in preparation for geologic, mining, and engineering work. It is open to students in science or engineering of sophomore or higher classes. (In the summer and autumn quarters Geology 1 is given for the general public, and primarily for teachers, without requirement of the prerequisites named.) Prerequisites: Chemistry 1, Physics 3*a*, and Engineering 1, 2, and 3.

1. Dynamical Geology.

Deals with earth processes, the evolution of topographic forms, and stratigraphy. Lectures and problems in field and laboratory.

3 or 5 units, autumn and *summer quarters (SHEDD) MTWThF 9
autumn, 82; summer, 49

2. Advanced Dynamical Geology.

Deals with strata as geologic formations, structure of sedimentary, igneous, and metamorphic rocks, and closes with an outline of current geologic dynamic theory. Lectures and problems in field and laboratory. Prerequisite: Geology 1.

5 units, spring quarter (WILLIS) MTWThF 9
winter, 40; spring, 32

2a. Economic Resources of the Northwest.

Lectures and reports on the resources of Oregon, Washington, and British Columbia.

2 units, autumn and summer quarters (SHEDD) TTh 10
autumn, 58; summer, 25

3. Structural Geology.

Advanced work in the structure of stratified, massive, and foliated rocks. Open only to students who have had Geology 1 and 2, and Mineralogy 1.

2 units, winter quarter (WILLIS) TTh 9
winter, 5

4. Field Geology.

Field practice in working out geology in the field and its representation upon topographic maps and sections. Prerequisites: Geology 1, Mineralogy 1, Paleontology 2, 3, and Civil Engineering 20 and 21.

8 units, summer quarter (TOLMAN)
summer, 38

5. Topographic Geology.

The construction of a topographic and geologic map and geologic sections by surveying methods, especially by means of the plane table. Open to students who have completed course 4 in Geology.

7 units, summer quarter (Tolman)
summer, 37

6. Regional Geology.

Lectures and reading, with discussions in seminar, on the geologic provinces of North America and other continents.

(Willis) By arrangement
winter, 1; spring, 7

7. Advanced Geology.

Reading and research work for advanced students in Geology.

(Willis) By arrangement

MINERALOGY

1. Common Minerals and Rocks.

The study of the more common minerals and prominent rock types. An elementary course with emphasis upon sight determination and simple physical and chemical tests. Introductory to the other courses in mineralogy and petrography. Open to students who have had Chemistry 1, *a, b,* and 3. Required of all Geology students, and open to a limited number of other students in order of application.

4 units, autumn and spring quarters (Rogers, Kerr)
autumn, 25; spring, 7 Lec. M 11, Th 10; Lab. MW 1:05–4:05

2. Crystallography.

An elementary study of the geometrical and optical properties of crystals with emphasis upon the polarizing microscope as an instrument of research. This course is intended primarily as a prerequisite for course 3, but may also be taken independently by chemistry and physics students as an introduction to the study of the solid state. Prerequisites: Physics 5 and Engineering 3.

4 units, winter quarter (Rogers) Lec. WF 11; Lab. WF 1:05–4:05
winter, 55

3. Systematic Mineralogy.

Systematic study of the important minerals and their determination by all available methods. Mineralogy 1 and 2 (Crystallography) and Chemistry *d* (Qualitative Analysis) are prerequisites.

4 units, spring quarter (Rogers) Lec. TTh 10; Lab. TTh 1:05–4:05
spring, 55

4. Petrography.

Study of hand specimens and thin sections of the principal rock types and mineral deposits. In course 3 the properties or characters of minerals are considered, while course 4 is primarily concerned with the relations between associated minerals with special reference to their occurrence and origin. Mineralogy 1, 2, and 3 are prerequisites.

5 units, autumn quarter (Rogers)
autumn, 26 Lec. WF 11; Lab. WF and one period by arrangement, 1:05–4:05

5. Advanced Mineralogy.

Advanced work in crystallography, mineralogy, or petrography may be undertaken by properly prepared students.

2 to 5 units, winter quarter (Rogers) By appointment
autumn, 1; winter, 3; spring, 2

ECONOMIC GEOLOGY

1. Non-metals.

The occurrence, distribution, origin, and geologic methods of investigation of the non-metallic substances. Prerequisites: Mineralogy 1, Geology 1, and Paleontology 2, 3.

4 units, winter quarter (TOLMAN) MTWTh 8
winter, 61

2. Ores.

The ore-forming processes, modes of occurrence of the various types of ore bodies, and the structures of the ores. A review of the important ore deposits of the United States and of the world. Open to students who have completed Mineralogy 1, Geology 1, and Paleontology 2, 3.

4 units, spring quarter (TOLMAN) MTWTh 8
spring, 49

3. Geology of Oil and Coal.—Prerequisite: Economic Geology 1.

4 units, spring quarter (TOLMAN) MTWTh 9
spring, 1

[4a, 4b. Petroleum Technology.—(Same as Mining and Metallurgy 24, *a* and *b*.)]

3 units, winter and spring quarters (TICKELL)

5. Seminar in the Origin and Accumulation of Oil.

(Same as Mining and Metallurgy 47.) A critical study of the literature with reference to the origin and accumulation of oil. Prerequisites: Economic Geology 1, Mining 24–28 inclusive. Students admitted only after personal consultation with the instructor.

4 units, winter quarter (TOLMAN) TTh 9–11
spring, 10

6. Seminar in Ore Deposits.

A review of the literature of ore deposits and the bearing of the data collected upon the problems of ore formation. Prerequisite: Mineralogy 4. For seniors and graduate students. (Three lecture and conference periods and one to three laboratory periods.)

4 to 6 units, spring quarter (TOLMAN) TTh 9 11
winter, 6; spring, 1

7. Special Courses.

These include: (*a*) a study of the literature of some special phase of economic geology, with a thesis; (*b*) field investigations of some mine or mineral district, or the general economic geology of an assigned area; (*c*) microscopic studies of ores collected during field studies, or microscopic investigation of suites of specimens owned by the University. (For graduate students; in exceptional cases seniors will be admitted.)

winter and spring quarters (TOLMAN) By arrangement
winter, 3; spring, 5

PALEONTOLOGY

1. Systematic Paleontology.

History and character of fossils. Three lectures and six hours of laboratory work weekly.

4 units, autumn quarter (SMITH) MWF 10
autumn, 29

2. Historical Geology.
History and character of geologic formations. Three lectures and six hours of laboratory work weekly.
4 units, winter quarter (SMITH) MWF 10
winter, 56

3. Historical Geology.—Continuation of course 2.
4 units, spring quarter (SMITH) MWF 10
spring, 49

4. Systematic Conchology.
Special studies in Tertiary and Recent Conchology of the West Coast. One lecture and two afternoons of laboratory work weekly.
2 units, autumn quarter (SMITH) TTh 1:05–4:05
autumn, 17

5. Tertiary Conchology of California.
2 units, winter quarter (SMITH) ThF 1:05–4:05
winter, 4

6. Paleobotany of California.
2 units, spring quarter (SMITH) ThF 1:05–4:05
spring, 3

7. General Geology of California.
2 units, autumn quarter (SMITH) TTh 10
autumn, 10

8. Detailed Stratigraphy of California.
2 units, winter quarter (SMITH) TTh 10
winter, 15

9. Stratigraphic History of the Great Basin.
2 units, spring quarter (SMITH) TTh 10
spring, 10

10. Advanced Paleontology.
Original investigation of various problems in paleontology, especially of invertebrate morphology, and of the distribution of faunas. This course will consist entirely of private work in field and laboratory. Open to advanced students and graduates.
2 to 5 units, all quarters (SMITH) By arrangement
autumn, 11; winter, 12; spring, 9

GERMANIC LANGUAGES

WILLIAM ALPHA COOPER, KARL GUSTAV RENDTORFF, Professors.
BRUNO BOEZINGER, Associate Professor.
CATHARINE MORRIS COX, Instructor.
HELENA MAY NYE, Assistant in Instruction.

The elementary and intermediate courses listed below are designed to prepare students to read German without translation, and to express ideas in simple German prose. Those who have completed courses 31,

32, and 33 may take any other advanced course for which, in the judgment of the instructor in charge, they are prepared. Courses 76, 91, 92, 93, and 106 are given entirely in English; the other advanced courses presuppose considerable facility in reading German, and some of them are conducted in German. Courses not assigned to any particular quarter, and with "By arrangement" instead of definite hours in the time schedule, will be given whenever there is sufficient demand for them.

Candidates for the A. B. degree in German are expected to elect advanced courses totaling thirty units.

Candidates for the Teacher's Recommendation in German are expected to elect advanced courses totaling forty-five units, including Middle High German.

Candidates for the Teacher's Recommendation in German as a minor subject are referred for information to the bulletin of the School of Education. Proficiency in German will be insisted upon.

Candidates for the A. M. degree in German are expected to take courses 52 and 151, and forty-three units besides from Group II.

Candidates for the Ph. D. degree are referred to the bulletin on Graduate Study.

The library facilities are good, and the collections are being strengthened in all directions. The private library of the late Professor Hildebrand, of the University of Leipzig, furnishes valuable material, particularly in the older literature and in lexicography. In modern literature the Library offers good opportunities for advanced work, the Goethe collection being especially satisfactory. The files and the current numbers of the most important journals are at hand.

The department maintains, in room 112, a special library of its own, including a collection of German textbooks and a model reference library for a secondary-school teacher. This collection of books is supplemented by an extensive collection of maps, wall pictures, and lantern slides, suited for use in teaching.

I. Elementary and Intermediate Courses

1. First-year German.

It is the object of this course to put the learner in possession of the elements of the German language. This implies: (1) a personal command of simple German, that is, the ability to understand such German, whether heard or read, and to employ the language in simple conversation, narration, and description, both orally and in writing; (2) such a ready familiarity with the elements of German grammar as is essential for the attainment of this command of the language.

5 units, autumn quarter (Cox, Nye) MTWThF 8, 9, 11
autumn (3 sections), 29, 47, 31

2. First-year German, continued.

5 units, winter quarter (Cox, Nye) MTWThF 8, 9, 11
winter (3 sections), 23, 33, 39

3. First-year German, continued.

5 units, spring quarter (Cox, Nye) MTWThF 8, 9, 11
spring (3 sections), 18, 30, 29

[Note.—Courses 1, 2, and 3, together, are equivalent to two years of German in the high school, and may be taken by students who have presented no units of credit in German for entrance into the University. Those who present one unit for entrance may take courses 2 and 3.]

11. Special Introductory Course.

The aim of the course is to prepare candidates for the Ph. D. degree in other departments to read the literature in German in their particular fields. A rapid survey of the elements of German grammar is followed by intensive practice in reading and translation. Course 1 should precede this course. Permission of the instructor necessary before registration.

1 unit, winter and spring quarters (Cox) By arrangement
winter, 10; spring, 9

15. German Pronunciation.

Practice in reading aloud and declaiming. Prerequisites: courses 1 and 2.

1 unit, spring quarter (Boezinger) By arrangement
spring, 2

20a. Free Reading, Literary.

Open to students who have had a year or more of German. Permission of the instructor necessary before registration. Thirty-six hours of reading per unit, and weekly conferences with the instructor.

1 or 2 units, each quarter (Cox, Nye) By arrangement
autumn (2 groups), 2, 22; winter (2 groups), 4, 22; spring, 23

20b. Free Reading, Scientific.

Requirements the same as for *20a*.

1 to 3 units, each quarter (Boezinger) By arrangement
summer, 4

21. Second-year German.

The aim of this course is to extend and strengthen the student's personal command of German, both oral and written. The course is taken to best advantage as a whole, but may be taken in part, either the division *21a*, which is devoted to the reading and discussion in German of texts selected from the writings of contemporary or late nineteenth century authors, or the division *21b*, which affords training in composition, conversation, and practical grammar.

21a. Second-year Reading.

3 units, autumn quarter (Cooper, Cox) MWF 9, 11
autumn (2 sections), 13, 19

21b. Second-year Composition.

2 units, autumn quarter (Cooper) TTh 9
autumn, 14

22. Second-year German, continued.

22a. Second-year Reading.

3 units, winter quarter (Boezinger, Cox) MWF 9, 11
winter (2 sections) 9, 6

22b. Second-year Composition.

2 units, winter quarter (BOEZINGER) TTh 9
winter, 5

23. Second-year German, continued.

23a. Second-year Reading.

3 units, spring quarter (BOEZINGER, COX) MWF 9, 11
spring (2 sections), 6, 4

23b. Second-year Composition.

2 units, spring quarter (BOEZINGER) TTh 9
spring, 5

[NOTE.—Second-year German (which includes courses 21, 22, and 23) is the equivalent of the third and fourth years of German in the high school. Students who present three units in German for entrance may take courses 22 and 23, or 23 and 24.]

24. Second-year German.

24a. Second-year Reading.

3 units, summer quarter (BOEZINGER) MWF 11
summer, 5

24b. Second-year Composition.

2 units, summer quarter (BOEZINGER) TTh 11
summer, 2

25. Scientific German.

3 units, autumn quarter (COX) MWF 9
autumn, 31

26. Scientific German, continued.

3 units, winter quarter (BOEZINGER) MWF 9
winter, 27

27. Scientific German, continued.

3 units, spring quarter (BOEZINGER) MWF 9
spring, 10

[NOTE.—Courses 25, 26, and 27 form one continuous course, but credit may be obtained for the work of any quarter separately. Prerequisites: Courses 1, 2, and 3, or two entrance units in German. Not open to freshman students.]

28. Scientific German.

3 units, summer quarter (BOEZINGER) MWF 9
summer, 12

II. ADVANCED UNDERGRADUATE AND GRADUATE COURSES

30. Directed Reading in Scientific German.

Prerequisites: Second-year German or Scientific German, three quarters. Thirty-six hours of reading per unit, and weekly reports to the instructor.

1 to 3 units, each quarter (BOEZINGER, COX) By arrangement
autumn, 24; winter, 6; spring, 25; summer, 12

31. Novels.

A course in rapid reading of modern novels, with discussions in German or their subject matter and technique.

3 units, autumn quarter (COOPER) MWF 11
autumn, 4

32. Classical Dramas.

A continuation of course 31, the works read being, for the most part, dramas of the classical period.

3 units, winter quarter (Cooper) MWF 11
winter, 5

33. Recent Dramas.

A continuation of course 31, the works read being, for the most part, dramas of the last fifty years.

3 units, spring quarter (Cooper) MWF 11
spring, 7

34. Dramas and Novels.

A continuation of course 31.

3 units, summer quarter (Boezinger) MWF 9
summer, 2

41. Advanced Composition.

By composition is meant, not translation from English, but the employment in connected prose of German material either gathered from reading or specially assigned by the instructor.

1 or 2 units, each quarter (Boezinger, Cooper) By arrangement
autumn, 3; spring, 8; summer, 1

50. Directed Reading.

Prerequisites: Second-year German for three quarters, and, if possible, one or more of the courses 31 to 34. Individual courses of reading, suited to special needs and desires. Thirty-six hours of reading per unit, and brief interviews, once a week, with the instructor.

1 or 2 units, each quarter (Cooper, Rendtorff) By arrangement
autumn (2 groups), 4, 3; winter 10; spring (2 groups), 4, 7; summer, 2

51. Individual Composition.

The aim of this course is to develop correct, idiomatic and adequate expression.

1 unit, each quarter (Cooper, Rendtorff) By arrangement
autumn, 1; winter, 1; summer, 1

52. Undergraduate Thesis.

Individual training in the aims and methods of research.

1 or 2 units, each quarter (Cooper, Rendtorff) By arrangement

53. German Etymology.

2 units, winter quarter (Cooper) TTh 11
winter, 5

54. German Syntax.

2 units, spring quarter (Cooper) TTh 11
spring, 5

74. Goethe's Lyrics.

A study of Goethe's lyrics in relation to his life and to his conception of the poet's calling.

3 units (Cooper) By arrangement

75. Goethe's Faust.—Course conducted in German.

3 units (Cooper) By arrangement

76. Goethe's Faust in English Translation.—An all-English course.
3 units, winter quarter (COOPER) MWF 8
winter, 15

77. Schiller's Works.
3 units, spring and *summer quarters (RENDTORFF) TTh 10
spring, 4; summer, 4

78. Heine and the Young German Movement.
3 units, autumn quarter (RENDTORFF) TTh 10
autumn, 3

82. History of the Nineteenth Century Literature.
3 units, autumn quarter (RENDTORFF) MWF 10
autumn, 2

85. Current Literary Movements.
3 units, spring quarter (RENDTORFF) MWF 10
spring, 5

86. The Development of the Drama.
3 units, summer quarter (RENDTORFF) MWF 10
summer, 3

87. The Development of the Novel.
3 units, summer quarter (COOPER) [Not given in 1921–22]

[91. History of Germany.—See History 57.]
3 units, autumn quarter (RENDTORFF) MWF 8
autumn, 15

92. History of German Civilization.—Lectures, with stereopticon.
2 units, spring and *summer quarters (RENDTORFF) MW 2:05–4:05
spring, 3; summer, 5

93. Art and Literature.
The relation between formative art and literature in Germany. Lectures with stereopticon.
2 units, summer quarter (RENDTORFF) MW 2:05–4:05
summer, 2

106. Modern Language Teaching.
Lectures on the various methods of teaching modern foreign languages, and the psychology involved.
1 unit (COOPER) By arrangement

107. German Teacher's Course.
Instruction and practice in progressive methods; examination of textbooks and illustrative material.
2 units (COOPER) By arrangement
spring, 4

121. Gothic.
2 units (BOEZINGER) By arrangement

123. Old High German.
2 units By arrangement

124. Middle High German.—Grammar and selected texts.
2 units, autumn and spring quarters (RENDTORFF) By arrangement
autumn, 1; spring, 1

136. Comparative Grammar of German and English.
3 units By arrangement

141. Seminary.
3 units By arrangement

151 Master's Thesis.
The candidate reports weekly to the instructor in charge for criticism, the work extending over three quarters, as a rule.
1 to 3 units, each quarter (COOPER, RENDTORFF) By arrangement
autumn, 1; winter, 1; spring, 2

GREEK

AUGUSTUS TABER MURRAY, Professor.
ERNEST WHITNEY MARTIN, Associate Professor.
[With the coöperation of Professor FAIRCLOUGH, of the Department of Latin.]

The department accepts as major students those who wish to make their work in college conform to the traditional Arts course, in which Classical studies form an important element, and also makes provision for the thorough training of those who look forward to post-graduate work in the Classics either in this University or elsewhere.

Students who have had no Greek before entering the University may begin their study of the language in any quarter in introductory classes which are open to students in all departments of the University. Students who offer Greek on entrance will be registered in classes adapted to their needs.

The major requirements for graduation amount normally to forty-five credit units. These for the most part naturally represent work in the study of the Greek language, especially in the case of students looking forward to post-graduate work in the Classics, but after the completion of courses 1–6 students desiring to do so may substitute for further work in the language the more general courses offered in the department, and with the consent of the departmental adviser a part of this elective work, when the tastes or special aims of the individual student justify it, may be taken in allied departments.

Together with the classes in Greek language the department offers courses in Greek Literature, Greek Art, Greek History, and New Testament Literature, which, as above indicated, may be taken as a part of the required work of major students in Greek, but which presuppose no knowledge of the Greek language, and are open to students in all departments of the University.

Students applying for the High School Teacher's recommendation in Greek must have completed the following courses: for a major, 1–6 inclusive, nine units selected from courses 7–12, and 17 and 18; for a minor, 1–4, 6 (or an equivalent), 17 and 18.

In courses 1–3 the work is arranged so as to provide as far as possible individual instruction adapted to the needs of each student. In courses 4–6 the intensive study of a limited portion of the authors read is supplemented by sight translation and by readings and lectures by the instructor.

Undergraduate Courses

1. Introduction to Greek.

Grammar (Bryant and Lake); learning of word-lists; writing of simple sentences; reading of the Gospel of John (White).

3 to 5 units, any quarter (Martin, Murray) MWF 8
autumn, 4; winter, 3; spring, 4

2. Xenophon.

Review of Greek Grammar; learning of word-lists from Xenophon; reading of selections from the Anabasis (Murray); writing of exercises based upon the text read.

4 units, winter quarter (Martin) MTThF 2:05
winter, 4

3. Attic Prose Writers.

Systematic review of Greek syntax (Goodwin); learning of word-lists from the texts read; reading of portions of Cebes' Tablet (Parsons); Plato's Apology (Dyer-Seymour).

4 units, autumn and winter quarters (Martin) MTWF 8
spring, 4

4. Introduction to Homer.

Study of Homeric forms and meter (Seymour); learning of Homeric word-lists (Owen and Goodspeed); reading of selections from the Iliad (Monro).

3 units, spring quarter (Martin) MWF 9
spring, 4

5. The Greek Historians.

Selections from Herodotus (Smith); Thucydides, Book I (Morris); study of The Greek Historians (Bury).

4 units, winter quarter

6. Introduction to Greek Poetry.

Reading of Euripides' Alcestis (Earle); the Greek Lyric Poets (Tyler); the Greek Anthology (Stadtmüller); Short History of Greek Literature (Wright).

4 units, autumn quarter (Murray) MWF 10
autumn, 3

7. Euripides.

Reading of Medea (Moore); Hippolytus (Harry); lectures and a study of these dramatic themes as treated by later poets.

3 units, winter quarter (Murray)
winter, 3

8. Sophocles. (In English.)

2 units, spring quarter (MARTIN) TTh 11
spring, 65

9. Aeschylus.

Reading of Prometheus Bound (Allen-Wecklein); Agamemnon (Sidgwick); lectures.
3 units, spring quarter (MURRAY) [Not given in 1921–22]

10. Plato.

Reading of the Republic, Books I and II (Wells); lectures.
3 units, spring quarter (MURRAY) [Not given in 1921–22]

11. Demosthenes.

Reading of the De Corona (Tyler); sight translation of Aeschines Against Ctesiphon (Richardson).
3 units, winter quarter (MURRAY) [Not given in 1921–22]

12. Pindar and Theocritus.

Reading of selected Odes of Pindar (Gildersleeve); reading of Theocritus (Cholmeley); lectures on Pastoral Poetry in ancient and modern literatures.
3 units, spring quarter (FAIRCLOUGH) [Not given in 1921–22]

SUPPLEMENTARY COURSES

13. Individual Work.

Students and instructors meet each week for work suited to the needs of the individual.
1 to 4 units, each quarter (MURRAY, MARTIN) By arrangement
autumn, 2; winter (4 groups), 3, 2, 1, 3; spring, 13; summer, 20

14. Journal Club.

Instructors and advanced students meet each week for the discussion of journals and new books of interest to Classical students.
2 units, winter and spring quarters (MURRAY, MARTIN)

15. Thesis Course.

Advanced students may, under the guidance of the instructor, undertake special studies for presentation in thesis form. This course is intended primarily to afford training in the methods of investigation.
2 units, each quarter (MURRAY, MARTIN) By arrangement
autumn, 1

16. Modern Greek.

Grammar (Rangabe); reading of easy texts.
2 units, spring quarter (MURRAY) TTh 11
autumn, 2; winter, 1

17. Teachers' Course.

Lectures on methods, with practical training.
2 units, winter quarter (MARTIN)
winter, 1

GENERAL COURSES

18. The Greek Epic.

Lectures on Homeric Poetry, with reading of the Iliad and Odyssey in English (Iliad, Lang, Leaf, and Myers; Odyssey, Butcher and Lang).
3 units, winter quarter (MURRAY) MWF 9
winter, 35

18a. Plutarch. (In English.)

2 units, summer quarter (MARTIN) TTh 11
summer, 35

19. Greek Tragedy.

Lectures on the art of tragedy among the Greeks, with the study of selected plays in translation (Aeschylus, Morshead; Sophocles, Jebb; Euripides, Everyman's Library).

3 units, spring quarter (MURRAY) MWF 9

20. New Testament Literature.

Lectures on the origin, authorship, and characteristics of the books of the New Testament. Peake's Critical Introduction is used as a handbook.

3 units, autumn quarter (MURRAY) MWF 9
autumn, 37

21. Greek Literature, Poets.

Lectures, reading in translations of selections from the greater Greek poets, with some reference to their influence on later literature. Textbook, Homer to Theocritus (Capps).

3 units, autumn quarter (MARTIN) MWF 11
autumn, 70

22. Greek Literature, Poets.—Continued.

3 units, winter quarter (MARTIN) MWF 11
winter, 38

23. Greek Literature, Prose Writers.

Lectures; reading in translations of selections from Herodotus, Thucydides, Xenophon, Plato, Demosthenes, Plutarch, and Lucian. Textbook, Short History of Greek Literature (Wright).

3 units, spring quarter (MARTIN) MWF 11
spring, 66

24. Greek History A.

From the earliest times to the end of the Persian wars. Lectures, with a study of Herodotus in English translation.

3 units, autumn quarter (MARTIN) [Not given in 1921–22]

25. Greek History B.

The Fifth Century. From the end of Persian wars to the fall of the Athenian empire. Lectures, with a study of Plutarch and Thucydides in English translations.

3 units, winter quarter (MARTIN) [Not given in 1921–22]

26. Greek History C.

The Fourth Century. From the fall of Athens to the death of Alexander. Lectures, with a study of Xenophon, Plutarch, Demosthenes, and Arrian in English translations.

3 units, spring quarter (MARTIN) [Not given in 1921–22]

27. Greek Sculpture.

Lectures, illustrated with photographs and lantern slides, on the history and character of Green sculpture.

2 units, autumn quarter (FAIRCLOUGH) TTh 11

28. Greek Myths.

The more important myths and legendary characters of early Greece are traced

through Greek literature with some reference to their treatment in later literature. Lectures with assigned reading. Open only to students who have had Greek.
3 units, spring quarter (Martin) [Not given in 1921–22]

28a. Greek Civilization. (In English.)
3 units, summer quarter (Martin) MWF 11
summer, 55

Graduate Courses

29. The Greek Seminary.
Graduate students and such others as may satisfy the director of their fitness for the work will meet each week during the year 1921–22 for the critical study of the *Republic* of Plato.
2 to 4 units, autumn, winter, and spring quarters (Murray, Martin)
autumn, 7; winter, 6; spring, 4

Graduate students will also find it well to take courses 14, 15, and 17.

HISTORY

Ephraim Douglass Adams, †Payson Jackson Treat, Professors.
Bernadotte Everly Schmitt, Acting Professor (Summer Quarter).
‡Frank Alfred Golder, Edward Maslin Hulme, Ralph Haswell Lutz, Percy Alvin Martin, Edgar Eugene Robinson, Associate Professors.
Henry Barrett Learned, Acting Associate Professor.
†Yamato Ichihashi, Reginald George Trotter, Assistant Professors.

The Department of History provides a liberal course for the A. B. degree, offers opportunity for graduate study leading to higher degrees, in certain selected fields in which the University is especially well equipped, trains teachers of History, and renders a general service to the other departments of the University.

In addition to its more specialized work, the Department offers a number of courses grouped as (I) Introductory and (II) Advanced Lecture Courses intended to meet the general needs of the University constituency. The underlying principle of these courses is that they shall be useful, not in the utilitarian sense, but in the sense that they aid in equipping the student for his duties as a citizen and in giving him instruction that may be helpful in such work as Law, Journalism, Library Research, State and National Public Service, and in business where a knowledge of domestic and foreign affairs is desirable.

For History majors the curriculum for the degree of A. B. is designed to familiarize the student with the fundamentals and methods of the chief branches of knowledge, and with the methods of historical

† Absent on leave, autumn and winter quarters, 1921–22.
‡ Absent on leave, 1921–22.

science. With this object in view, a general system of advice and requirement has been outlined, but it may be varied to suit the circumstances of the truly exceptional student. Under the four-quarter system 180 units are required for graduation. The general system of the History Department prescribes 45 units of History, of which 3 are required in an Introductory Seminar, and 6 in one or two Seminar Courses. In addition to the requirements of the Lower Division the Department requires eight units in Economics or Political Science, and a reading knowledge of at least one foreign language by the end of the Junior year.

Advanced Degrees.—Graduate students, candidates for advanced degrees, are desired and will be given personal guidance, but the purposeless graduate student will not be accepted by the Department. For the opportunities of graduate study in History see University Bulletin on Graduate Study.

Graduate students seeking to fulfill the requirements of the State Board of Education for the Teacher's Certificate will be given the necessary aid and opportunities, but will register as majors in the School of Education. (See University Bulletin of School of Education.)

The Teacher's Recommendation in History.—Applicants for the departmental recommendation, as a major, must have completed in a manner acceptable to the department at least 42 units of History, as follows: (1) Seminar Courses aggregating at least 6 units; (2) Introductory Seminar Course, 3 units; (3) the Teacher's Course in History (History 100), 3 units; (4) 30 units in the group of courses selected from the following fields: Medieval and Modern History (courses 10–14 inclusive); English History (courses 16 and 17); Far Eastern History (courses 27–32 inclusive); American History (courses 21–24 inclusive); Latin-American History (courses 36 and 37). History majors may substitute for any two of the Introductory Courses 10 units of Ancient History as offered by the Departments of Greek and Latin.

As prerequisite to the departmental recommendation in History for the high school teachers' certificate as a minor, the student must have completed at least 27 units in either European or American History, as follows:

1. For the minor in European History: (*a*) 15 units in the group of Introductory Courses selected from the fields of European History, English History, and Far Eastern History; (*b*) 3 units in an Introductory Seminar Course; (*c*) 6 units in a Seminar Course; (*d*) the Teachers' Course in History, 3 units.

2. For the minor in American History: (*a*) 15 units in the group of Introductory Courses selected from the field of American History and Latin-American History; (*b*) 3 units in an Introductory Seminar Course; (*c*) 6 units in a Seminar Course; (*d*) the Teachers' Course in History, 3 units.

Any student who has secured the minor recommendation of the department in either European or American History may thereafter earn the major recommendation by completing the 15 units of the Introductory Courses in the opposite group.

Students taking History as a major with the intention of preparing for Journalism are referred to the heading Journalism on page 190.

I. Introductory Courses

[24. Greek History A.

From earliest times down to the end of the Peloponnesian War. Open to all students.]

3 units, autumn quarter (Martin)

[25. Greek History B.

From the Spartan Supremacy to the Roman Conquest. Open to all students.]

3 units, winter quarter (Martin)

[29. History of Rome.

A general course, open to all students.]

3 units, spring quarter (Elmore)

10. European History, 395–1300.

A general course dealing with the development of mediaeval life and institutions, with special attention to feudal conditions, and also to the church as the controlling force influencing every element of the life of the time. Open to all students.

3 units, autumn quarter (Hulme) MWF 9
autumn, 224

11. European History, 1300–1648.

A continuation of History 10, with special emphasis upon the Renaissance and the Reformation, and covering the broader movements of the later period up to the Peace of Westphalia. Open to all students.

3 units, winter quarter (Hulme) MWF 9
winter, 253

12. Europe Since 1648.

A survey of the political, economic, and social development of the European nationalities with special emphasis upon the period of absolutism, industrial revolution, French revolution, growth of democracy and nationalism, and the world war. Open to all students.

3 units, spring quarter (Lutz) MWF 9
spring, 171

13. The History of France.

A general survey course of institutional, social, and political development. Open to all except freshman students.

3 units, winter quarter (Lutz) TTh 9
winter, 162

14. Slavic Nationalities.

A survey of the development of the leading Slavic nations—Russia, the newly created states of Central Europe, and the Balkan States. Open to all except freshman students.

5 units, winter quarter (LEARNED) MTWThF 8

16. English History to 1603.

A general outline course on the making of the English state and nation to the death of Elizabeth, with emphasis upon events and institutions especially significant for the later history of the English-speaking peoples. Lectures and outside reading. Open to all students, though especially intended for those in the Lower Division.

5 units, winter quarter (TROTTER) MTWThF 11
winter, 114

17. England Since 1603, and British Overseas Expansion.

A continuation of History 16.

4 units, spring and *summer quarters (TROTTER) MTWF 11
spring, 163; summer, 81

21. American History, 1607–1789.

A survey of the English Colonization of the Atlantic Seaboard and of the westward movement of colonists of the British Empire, followed by a consideration of the Revolution and of the formation of the American government. Open to all students.

3 units, autumn quarter (ROBINSON) MWF 10
autumn, 138

22. American History, 1789–1848.

Presidential administrations from Washington to Polk; the War of 1812; industrial changes and expansion; abolition; political changes; territorial expansion. Open to all students.

3 units, winter quarter (ADAMS) MWF 10
winter, 132

23. American History, 1848–1919.

Slavery issues; the Civil War; reconstruction; industrial changes; new political parties and theories; the United States and world politics. Open to all students.

3 units, spring and *summer quarters (ADAMS, ROBINSON) MWF 10
spring, 145; summer, 43

24. The Westward Movement.

A survey of the expansion of the American people into the Mississippi Valley, and the American occupation of the Pacific Northwest and of California. Open to all except freshman students.

4 units, spring quarter (ROBINSON) MTWF 8
spring, 101

27. The Far East.

An account of the relations between Western nations and the peoples of Eastern Asia. Emphasis is placed upon international relations, especially since the middle of the nineteenth century, rather than upon the domestic history of the Eastern nations. The work of the Portuguese, Dutch, and British is studied and special attention is given to the rise of the British Empire in India. Open to all except freshman students.

5 units (TREAT) [Not given in 1921–22]

28. The Far East.

The relations of the West with China, Indo-China, Japan, and the Philippines. Open to all except freshman students.

5 units, spring quarter (Treat) MTWThF 9
spring, 204

31. History of Japan to 1600.

A survey of, and an attempt to interpret, the history of the ancient and medieval civilization of Japan. Particular attention is paid to the origin of the Japanese race, early influence of the continental civilizations, the Great Reform of 645, the Taiho Code of 701, the position of Buddhism and Buddhists in Nara civilization, Japanese language, Heian or classical culture of Japan, the rise of feudalism, the feudal institutions of Kamakura, the Mongol invasions, Japan's foreign relations, the religions, Shintoism, Buddhism, and Christianity, and Hideyoshi's colossal ambitions. Open to all except freshman students.

4 units, autumn quarter (Ichihashi) [Not given in 1921–22]

32. History of Early Modern Japan, 1600–1854.

A detailed examination of feudal Japan under the Tokugawa in order to obtain the underlying factors in Japanese life. Special attention is given to the political and social structure of the country, to Tokugawa laws and legal institutions. Japan's foreign and domestic commerce and commercial institutions, industrial development and industrial arts, fine arts, education, philosophy, science and literature, and Bushido. Open to all except freshman students.

4 units winter quarter (Ichihashi) [Not given in 1921–22]

36. History of Spanish America.

An outline course, dealing chiefly with the Spanish Colonial System and the Spanish-American Wars of Independence. Open to all except freshman students.

5 units, autumn quarter (Martin) MTWThF 9
autumn, 113

37. History of South America since 1823.

A continuation of History 36. An outline course dealing with the history and institutions of the leading nations of South America; includes the discussion of such topics as the Monroe Doctrine, Pan-Americanism, and the relations between the United States and Latin America.

5 units, winter quarter (Martin) MTWThF 9
winter, 83

40. The Issues of the Great War.

Lectures and reading. This course will be given as it was organized to meet the requirements of the S.A.T.C., but with additions to cover the work of the Peace Conference. Open to all.

2 units, spring quarter (Adams) TTh 10
spring, 121

II. Advanced Lecture Courses

[The courses in this group are intended for students of at least junior standing, but sophomores may be admitted at the discretion of the Instructor.]

[History of Roman Civilization.—See Latin 37.]

50. The Italian Renaissance.

The development of the new humanism in its relations to the political, social, and

religious life of the time. The lectures will deal with the sources as well as the evolution of the new and broadening thought of this critical and formulative period; with the revival of nationality and individuality, of literature, of art, of science, and of conscience, with the changing economic and social conditions; and with the development of political theory and the transformation of law.

3 units, summer quarter (HULME) MWF 10
summer, 29

51. Europe Since 1815.

A course of lectures on the conflict of Reaction and Liberalism, the Industrial Revolution, the emergence of class consciousness, nationalism and imperialism, the Great War and the terms of peace.

3 units, autumn quarter (LUTZ) MWF 10
autumn, 25

51a. European Diplomatic History, 1871–1914.

A lecture course on the international relations and purposes of the leading states of Europe, from the end of the Franco-Prussian War to the outbreak of the Great War.

2½ units, summer quarter, 2d half (SCHMITT) MTWThF 10
summer, 17

52. History of the Intellectual Class.

A study of various movements of thought and ideals of culture and conduct that have been influential in the life of western Europe.

2 units, autumn quarter (HULME) TTh 9
autumn, 42

53. History of Russia.

This course, designed to be a sketch of the rise of the great Russian race into prominence, especially in northeastern Europe, will cover the ground with some degree of detail from about 1462 to 1917; the earlier epochs, from *circa* 800 to 1462, will be briefly sketched by way of introduction. A good general outline is Beazley, Forbes, and Birkett's *Russia from the Varangians to the Bolsheviks* (1918).

2½ units, summer quarter, 1st half (LEARNED) MTWThF 10
summer, 15

54. Germany Since the Peace of 1919.

An examination of political, social, and industrial developments, with special reference to the terms and intent of the Peace Treaty.

3 units, spring quarter (GOLDER) [Not given in 1921–22]

55. The Baltic States.

An outline history of the development and relations to Europe, of Sweden, Norway, Finland, and Denmark.

3 units, spring quarter (LEARNED) MWF 8
spring, 10

56. History of Canada.

A survey of the evolution of the Dominion of Canada. Preliminary consideration of the periods of discovery, of early trade and settlement by French and British, and of the contest between France and Britain for empire, followed by a survey of the further development of the several colonies, their achievement of responsible government, their consolidation and expansion into a continent-wide federal dominion and growth to autonomous nation-hood as a member of the British Empire

Commonwealth. Emphasis also upon the significance in Canadian History of Canada's nearness to and relations with the United States.

4 units, summer quarter (TROTTER) MTWF 9
summer, 21

57. History of Germany.

A general survey, with particular emphasis on the period since 1848.

3 units, winter quarter (RENDTORFF) MWF 8
autumn, 14

58. British Constitutional History.

An attempt to explain the development, the underlying principles, and the operation of the British constitution. It is also the aim of the course to give a background for American constitutional history. Lectures and reading.

3 units, winter quarter (TROTTER) MWF 10
winter, 55

61. History of the Far West.

The growth and development of the trans-Mississippi region, with particular emphasis upon the history of California.

2 units, summer quarter (ROBINSON) TTh 8
summer, 24

62. History of the West.

A consideration of the political phases of the expansion of the American people; an examination of new issues and new groups that have arisen in the West and their influence upon national party history.

2 units, autumn quarter (ROBINSON) TTh 10
autumn, 25

64. British-American Diplomatic Relations.

Lectures and reading on those incidents or conditions in foreign policy where the United States has come into conflict or contact with the foreign policy of Great Britain and her colonies; with a survey of the general purpose of British and of American foreign policy throughout the hundred-year period.

3 units, autumn quarter (ADAMS) MWF 11
autumn, 26

66. History of Australasia.

An account of British colonization in Australia and New Zealand to the present time. Open to third-year students who have a satisfactory knowledge of English history.

3 units (TREAT) [Not given in 1921–22]

68. Modern Japan Since 1854.

A critical study of political and economic Japan since 1854 in order to determine the causes that enabled the nation to attain her present position in the world of politics and economics. Special attention is paid to political movements since the reopening of Japan to Western intercourse and to the promulgation of a constitution in 1889, or the struggle between feudalism or bureaucracy and liberalism or democracy.

3 units, spring quarter (ICHIHASHI) MWF 10
spring, 14

70. History of Mexico and California.

A somewhat detailed study of the history of Mexico up to the present time, and of the history of California to 1848.

3 units, spring quarter (MARTIN) MWF 11
spring, 27

[Law 10. Constitutional Law I.

Accepted for credit in fulfilling the History requirements for the A. B. degree.
3 units, winter quarter (CATHCART)]

[Law 11. Constitutional Law II.

Accepted for credit in fulfilling the History requirements for the A. B. degree.
3 units, spring quarter (CATHCART)]

[Law 14. International Law.

A course given by the Law Department, strongly advised for History majors interested in world politics and relations. It will be accepted for credit in fulfilling the History requirements for the A. B. degree. Open, at the discretion of the instructor, to majors of other than the Law Department in their third or fourth year.
4 units, winter quarter (HUSTON)]

III. INTRODUCTORY SEMINAR COURSES

[The courses in this group are intended primarily for History majors in their junior year, as preparation for senior seminars, or graduate work. If a course is not filled by History majors, others may be admitted at the discretion of the instructor.]

72. American Naval History.

A lecture course presenting an account of the development of the American navy, its activities, and its historical influence.
2 units, autumn quarter (BEACH) TTh 9
autumn, 53; winter, 57

74. United States Military History.

3 units, winter quarter (BEACH)
winter, 35

77. Historical Method.

A course preparatory to historical research and to the teaching of history. It will discuss what history is, what it is for, what are its materials, what are its methods, what are its relations to neighbor studies, how to read history, how to study it, and how to write it. It will also provide for introductory studies of some of the sciences that are auxiliary to history.
3 units, summer quarter (HULME)
summer, 16

78. Nineteenth Century European Problems.

Papers and class discussions on important domestic and foreign problems of European nations. Open to History majors, with two years' credit.
3 units, spring quarter (GOLDER) [Not given in 1921–22]

79. The American Presidency, 1869–1921.

Studies in recent history designed to throw light on the conception of the office and the evolution of presidential policy.
3 units, spring quarter (LEARNED) T 2–4
spring, 13

80. Selected Topics in British Constitutional History.

The topics for 1921–22 will deal with problems in the modern development of the British Empire Commonwealth. Limited to students who are taking History 58 or have already taken it or its equivalent.
2 units, winter quarter (TROTTER) Th 2–4
winter, 6

84. The World War.

A general survey of the period of the war and the armistice, with assignment of special topics for study from materials in the Hoover War Library.

3 units, winter quarter (LUTZ) MWF 11
winter, 12

86. Relations Between California and the Federal Government.

An examination of materials revealing the problems of California and their relation to national development.

3 units, autumn quarter (ROBINSON) M 3–5
autumn, 8

88. American Diplomatic Relations.

Not a general survey of the field, but a specialized study of selected topics, with use of the available documentary material. Intended primarily for History majors, but open to junior students who are familiar with the elements of American and European History.

3 units, autumn quarter (ADAMS) W 2–4
autumn, 12

90. Tropical Colonization in the Far East.

A study of the present methods of the English, Dutch, French, and American governments in their tropical dependencies in the Far East. Investigation, discussion and reports. Open to students who have taken course 27.

3 units (TREAT) [Not given in 1921–22]

92. Governments of the Far East.

A study of the present governmental systems of China and Japan. Open to students who have taken course 28.

3 units, spring quarter (TREAT) MWF 11
spring, 4

96. History of Brazil.

A somewhat detailed study of the History of Brazil, with special emphasis on the period since 1822. The course will include a comparison of Brazilian political institutions with those of Spanish America and the United States. Open to those who have had History 37 and to others with permission of the instructor.

3 units, autumn quarter (MARTIN) MWF 11
autumn, 8

97. Selected Topics in Japanese Political History.

Papers, reports, and discussion in class, with examination of materials in English useful to a correct understanding of Japanese institutions.

3 units, spring quarter (ICHIHASHI) W 2–4
spring, 3

IV. SEMINAR COURSES

[For History majors primarily, of senior or graduate standing.]

100. The Teaching of History.

A course intended for those students who expect to teach history in intermediate or secondary schools. Its purpose is to make the student acquainted with the aims, the methods, the apparatus, and the literature of the work of teaching history.

3 units, winter and *summer quarters (HULME) MWF 2–3
winter, 25; summer, 12

105. Seminar in Medieval History.

Subject for 1921–22: Liberal Thought in the Sixteenth Century.

3 units, autumn and winter quarters (HULME) T 2–4
autumn, 7; winter, 12

107. Seminar in Modern European History.

Subject for 1921–22 in the period since 1789.

3 units, autumn and spring quarters (LUTZ) Th 2–4
autumn, 7; spring, 13

107a. Seminar in Modern European History.

Special topics for the first six weeks to be decided later; the second six weeks will be occupied with a study of the various racial and geographical problems raised by the Peace of Versailles, in which use will be made of the materials in the Hoover War Library.

3 units, summer quarter (LEARNED, 1st half; SCHMITT, 2d half) Th 2–4
summer, 14

110. Seminar in the History of England and the British Empire.

Topics for 1921–22 selected from the period since 1850.

3 units, spring quarter (TROTTER) Th 2–4
spring, 7

113. Seminar in the History of the West.

A study of materials relating to the political phases of westward expansion.

3 units, spring and summer quarters (ROBINSON) M 2–4
spring, 15; summer, 5

119. Seminar in American Diplomatic History.

Topics for 1921–22 selected from the period since 1865.

3 units, winter and spring quarters (ADAMS) W 2–4
winter, 16

122. Seminar in American-European Relations.

Limited to candidates for advanced degrees.

Units various, any quarter except summer (ADAMS) By appointment

125. Seminar in the History of the Far East.

Each year some phase or period of the relations of the United States with the Far East will be studied, and each student will prepare a thesis on some special topic of investigation.

(TREAT) [Not given in 1921–22]

126. Seminar in Russian History.

Topics to be selected from episodes of recent developments in Russia.

3 units, winter and spring quarters (LEARNED) Th 2–4
winter, 7; spring, 7

128. Seminar in Japanese History.

Individual investigation under advice and direction of the instructor.

3 units, autumn and winter quarters (ICHIHASHI) [Not given in 1921–22]

131. Seminar in Latin-American History.

Subject for 1921–22: Diplomatic Relations between the United States and Latin America.

3 units, winter and spring quarters (MARTIN) M 2–4
winter, 7; spring, 5

132. Seminar in American Naval History.
3 units, autumn and winter quarters (Beach)
autumn, 9; winter, 13

140. Summer Graduate Work.
Students properly qualified under the University regulations, to pursue genuine graduate studies, will be given special attention and due credit allotted for the work accomplished. Such students will receive individual advice and guidance, whether in set courses or in special research. For the summer quarter in 1922, the fields in which graduate work may be thus carried, and the instructors in attendance, are (1) Medieval History, Professor Hulme; (2) English and Canadian History, Professor Trotter; (3) American History, Professor Robinson; (4) Modern European History, Professors Learned and Schmitt.
Units, not to exceed total of 15 Hours by arrangement
summer (2 groups), 8, 4

HOPKINS MARINE STATION

Walter Kenrick Fisher, Director.

SUMMER QUARTER STAFF, 1922

Margery Bailey, James Percy Baumberger, Bradley Moore Davis, Ernest Gale Martin, Thomas Leon Patterson, Charles Vincent Taylor.

The Hopkins Marine Station is situated at Pacific Grove on the south side of Monterey Bay, California. The Station, originally designated the Hopkins Seaside Laboratory (later, the Marine Biological Laboratory), was opened in 1892 and was the joint gift of Mr. Timothy Hopkins and the Pacific Improvement Company. A second building, donated by Mr. Hopkins, was added in 1893.

In 1916 a new location was secured, nearly five acres in extent, consisting of the main portion of Cabrillo Point, about half a mile east of the old site. To this, two and one-half acres were added by purchase in 1921. The situation insures complete control of the coast line of the point, including an excellent sheltered landing place and harbor for boats of considerable size. The first building of the new station was erected in 1917. It is of reinforced concrete construction, approximately forty feet by eighty-three feet, and three stories in height. The first floor provides a physiological laboratory, containing a large floor aquarium, divisible into three compartments by movable partitions; a concrete-floored room for the storage of boats, collecting apparatus, etc., and for the sorting of collections; a large storeroom, men's lavatory, furnace room, photographic dark room, and janitor's rooms.

The second floor, into which the main entrance opens, is devoted to

the three general laboratories, accommodating each about fourteen students. Two private laboratories for instructors are also provided on this floor. The third floor contains a large library, with a generous fire place, an adjoining room for records and writing, an advanced laboratory, six commodious private laboratories for investigators, and a rest room for women. Fresh and salt water is provided in each laboratory, the sea water being pumped to a concrete tank upon the roof, whence it is distributed to the various aquarium tables. Heating is provided by a hot-air system, and electric lights and gas are installed. From the third floor a stairway gives access to the flat, parapeted roof where open-air aquaria may be set up as needed.

There are thus five laboratories available for classes and eight private laboratories for investigators.

In recognition of the aid rendered by Mr. Hopkins during the whole life of the laboratory, the Board of Trustees of the University changed the name, October 26, 1917, to the Hopkins Marine Station of Stanford University.

Work of the Station

The Hopkins Marine Station fulfills a two-fold function; first, it furnishes under exceptional natural advantages elementary and advanced instruction in biology; second, it provides for research work.

The Station is open the entire year. Investigators and special students can be accommodated at any time, but regular classes are scheduled for the Summer Quarter only. The Departments of Zoology and Physiology will schedule their summer work at the Station, and not at Stanford University.

Admission and Fee

Students who are matriculated at the University may take scheduled work or special courses under the same conditions that obtain at the University. Others may enroll (as non-matriculated students) if in the judgment of the instructor they are sufficiently prepared.

The General Fee (covering all charges) is seventy-five dollars per quarter for undergraduates and fifty dollars for graduates. (For students matriculating in the University before October, 1921, this fee will be forty dollars.)

To investigators prepared to carry on research, the use of the Station facilities is tendered free of charge.

Students must register for regular courses on the days specified in the University Calendar. Late registration will be permitted only with the approval of the director and of the instructors concerned.

Courses for Summer Quarter, 1922

1. General Zoology.

A course designed to give a general view of the animal kingdom—the types of animals, general life processes, life histories, structure, development, and classification. Excursions will be made to various points along the shore in order that students may collect and observe living animals. This course is closely coördinated with Elementary Physiology, and concurrent registration in that course is required. (Limited to 12 students.)

5 units (Taylor) MTWThF 10–12
summer, 14

2. The Classification and Ecology of Marine Invertebrates.

The object of this course is to give the student the widest possible acquaintance with the animals which live along shore and in the plankton of Monterey Bay. While an extensive knowledge of invertebrate forms is aimed at, some one group, in which the student becomes interested, will be studied more intensively. The prescribed work will also include a study of the associations of animals, their distribution, and something of their behavior, or simple reactions. Each student will collect much of his own material in the field. (Limited to 12 students.)

5 units (Fisher) MTWThF 10–12
summer, 5

3. Vertebrate Embryology.

A study of the fundamental facts of the development of higher vertebrates with special emphasis upon the embryology of the chick.

5 units (Taylor) ThF afternoons, S 8–12
summer, 6

4. Reading in Bionomics.

Supervised reading in evolution, genetics, or along other special lines, for advanced students prepared to undertake the work.

1 or 2 units (Fisher) Hours by arrangement
summer, 2

5. Zoology Research.

Research or special work in the field of morphology, taxonomy, and ecology of invertebrates.

(Fisher) Hours and credit by arrangement

6. Elementary Physiology.

This course is designed to give a general survey of the physiology of living things with special reference to marine animals and plants, and the application of the fundamental principles thus developed to the functions of other forms, including man. Textbook: The Human Body, Martin, Advanced Course, tenth edition. (Limited to 14 students.)

For regularly enrolled undergraduates the requirement will be concurrent registration in General Zoology.

5 units (Martin, Baumberger, Patterson)
summer, 16 Lec. T 1:30–2:30; Lab. MWF 1:30–4:30

7. General Physiology.

Advanced instruction and research in general physiology.

summer, 2 (Baumberger) By arrangement

8. Morphology and Classification of the Algae.
This course will be based upon a study of types from the principal groups of the fresh-water and marine algae to give a thorough grounding in morphology, physiology, classification, life-histories, and life habits. The laboratory work will be very largely adapted to the preparation of individual students. Those with some knowledge of the algae will devote themselves to groups with which they are less familiar. Marine forms, which are exceptionally well represented in the region, will receive particular attention. Field work will be an important feature of the course. Lectures will discuss the characteristics and relationships of the groups, and the fundamental principles of plant cytology will be developed. Students prepared to undertake research will be encouraged to do so and may take the course for a greater amount of credit if able to devote themselves wholly to their work.
5 units (Davis) ThF afternoons, S 8–12
summer, 5

9. English Composition (English 2).
The study and practice of exposition.
3 units (Bailey) MWF 8–9
summer, 6

10. English Classics (English 10).
A study of representative works of great English writers, with assigned reading and discussion.
5 units (Bailey) MTWThF 9–10
summer, 10

11. Free Reading (English 13).
General reading under direction, in the field of the student's own interest, with weekly meetings for discussion of the reading done.
2 units (Bailey) Hours by arrangement
summer, 6

A full quarter's schedule of 15 units may be taken by registering for three 5-unit laboratory courses, or for one or two laboratory courses, with the balance in courses 9, 10, 11. Courses 1, 6, and 8 will count toward the requirement in biology for those desiring to register in Medicine, while courses 9, 10, 11 will fulfill the English requirements of medical students. Courses 1, 2, and 3 are major requirements in the Department of Zoology, and course 3 is also required of medical students.

[Note.—Students will not be accepted in courses 1, 2, 3, 6, and 8 for a half quarter only.]

LATIN

Henry Rushton Fairclough, Professor.
Jefferson Elmore, Benjamin Oliver Foster, Associate Professors.
Fred Latimer Hadsel, Mary Webster Kraemer, Assistants in Instruction.

Major Students

The Department recognizes three classes of major students: (1) those who wish to pursue a course of liberal studies, including Latin as a prominent feature; (2) those who desire such a course as preliminary to professional studies; (3) those who, expecting to teach Latin, desire to be properly equipped for that purpose.

Major students who wish to qualify for teaching Latin must take courses 3, 4, 6, 7, 8, 9, 11, and 17, together with such other courses as are recommended by the Department. To other students more freedom of choice is allowed.

Students of other departments who wish to acquire a teaching major or minor in Latin should refer to the announcements of the School of Education, or consult some member of the Latin department.

I. Undergraduate Courses

TRANSLATION, COMPOSITION, SYNTAX, ORAL

The aim of the undergraduate courses in Latin is to give the student a somewhat systematic knowledge of the language and its development, an acquaintance with the representative authors of Latin literature, and some insight into the life, culture, and civilization of ancient Rome.

1. Cicero and Virgil.—Selections.

4 units, summer quarter (Kraemer) MTWF 11
summer, 2

1a. Cicero.

Selections from the speeches and letters. The course is intended for first-year students who have had two years of high school Latin and for others who wish to acquire facility in reading.

4 units, autumn quarter (Hadsel) MTWF 11
autumn, 9

1b. Ovid and Virgil.

Selections from the Metamorphoses, Book I of the Aeneid. This course is intended for students who have taken course 1*a*, but is also open to others who have had two years of high school Latin.

4 units, winter quarter (Hadsel) MTWF 11
winter, 10

1c. Virgil.

Books II-VI of the Aeneid. This course is intended for those who have passed in course 1*b*, but may be taken by others who have had two years of high school Latin.

4 units, spring quarter (Elmore) MTWF 11
spring, 9

3. Terence and Cicero.

The Andria of Terence and the De Senectute of Cicero. Open to those who have completed course 1, or course 2, or who have offered entrance subject 8*b*.

4 units, autumn quarter (Elmore) MTWF 9
autumn, 4

4. Catullus and Horace.

Selections from Catullus and the Odes and Epodes of Horace. This course is complementary to course 3, but may be taken independently of it by those who have had course 1 or an equivalent.

4 units, winter and *summer quarters (FOSTER, FAIRCLOUGH) MTWTh 9
winter, 2

4a. Livy.

Books XXI and XXII. This course is open to those who have had the equivalent of four years of Latin in the high school.

3 units, spring quarter (FOSTER) MWF 9
spring, 2

4b. Selections from the Latin Poets.

Open to those who have had the equivalent of four years of Latin in the high school.

3 units, summer quarter (FAIRCLOUGH) MWF 8
summer, 3

5. Roman Law.

The Institutes of Gaius or Justinian are read both as a training in language and as an introduction to the main principles of Roman law. The course is useful to all who desire a first-hand knowledge of Roman law and of the origins of European social institutions. Open to all students who have had three years of Latin.

3 units, autumn and winter quarters (FAIRCLOUGH) MWF 8
autumn, 5; winter, 7

6. Prose Composition.

The exercises are not based on a Latin text, but are drawn from present-day affairs and events, with the aim of imparting some facility in original composition.

2 units, spring quarter (FOSTER) TTh 9

7. Horace.

Satires and Epistles. Open to students who have had courses 3 and 4, or an equivalent. Attention is directed especially to the style and subject-matter, to Horace's influence on Latin literature, and to the salient features of the Augustan Age.

4 units, autumn quarter (FAIRCLOUGH) MTWTh 9
autumn, 3

8. Tacitus.

The Agricola and Germania, or selections from the Annals. Selections from Livy's History and the Annals of Tacitus.

4 units, winter quarter (FOSTER) MTWF 11
winter, 3

9. Oral Latin.

Practical exercises intended to increase the student's facility in the use of Latin without translating.

1 unit, spring quarter (FOSTER)
spring, 5

11b. Cicero.

Selections from the Verrine orations.

4 units, autumn quarter (FAIRCLOUGH) MTWTh 8
autumn, 5

12. Syntax.

A study of the main features of Latin syntax, with especial reference to its development in late Latin and in the Romanic languages.

2 units, autumn quarter (ELMORE) MTh 2:05–3:05
autumn, 4

13. Christian Latin.

History of the Latin Vulgate. Introduction to popular and medieval Latin. Reading of the Vulgate text of the Acts of the Apostles. Graeco-Roman civilization of the First Century. Open by permission of the instructor to those who have had three years of high school Latin.

2 (or 3) units, spring quarter (ELMORE) TTh 8
autumn, 2

15. Lucretius.

Selections from the de Rerum Natura, with informal discussions of the Epicurean philosophy and the literary qualities of the poem.

4 units, winter quarter (FOSTER) MWThF 8
winter, 9; spring, 3

17. Teachers' Course.

Lectures and conferences on methods of teaching Latin. Open only to advanced students.

2 units, spring and *summer quarters (ELMORE, FAIRCLOUGH) TTh 2:05–3:05

18. Petronius and Apuleius.

The Cena Trimalchionis and selected episodes from the Metamorphoses.

3 units, spring quarter (FOSTER) MWF 11

20. The Roman Novel.

3 units, spring quarter (FOSTER) MWF 11
spring, 6

21. Latin Grammar.

A study of Latin forms and syntax, particularly in relation to Spanish. The course of special value to students of Spanish and the other Romanic languages.

2 units, summer quarter (KRAEMER) MW 3:05–4:05
summer, 3

II. General Courses

(Designed chiefly for those who are not special students of Latin, but are interested in the literary, artistic, or historical importance of the Mediterranean civilization.)

29. History of Rome.

A general course, open to all students. Stress is laid on the development of Roman imperialism and on the relation of the empire to modern civilization.

3 units, spring quarter (ELMORE) MWF 8
spring, 116

31. Classical Art and Archaeology.

Greek and Roman architecture and sculpture, illustrated with photographs and lantern slides. Open to all students.

2 units, summer quarter (FAIRCLOUGH) TTh 11
summer, 6

31a. Roman Art and Archaeology.

A survey of the topography, architecture, sculpture, and other art forms of ancient Rome and the provinces, illustrated with lantern slides. Open to all students.

2 units, winter quarter (FAIRCLOUGH) TTh 11
winter, 38

37. The History of Roman Civilization.

A study of the conditions of Roman life with special reference to Etruscan, Greek, and Oriental influences. Open to juniors and seniors and to others by permission of the instructor.

3 units, autumn quarter (ELMORE) MWF 8
autumn, 46

III. GRADUATE COURSES

(Open to graduates in Latin, and most profitable to those who have had some undergraduate work in Greek. The ability to read French and German is also very desirable, and, in the case of candidates for the degree of Ph. D., necessary. The aim of the courses is to give the student a thorough grasp and detailed knowledge of particular authors, and of certain periods and fields of literary activity, as well as a training in literary criticism, and an acquaintance with the methods of original research.)

22a. Latin Seminary.

Lyric Poetry. All of Horace's lyrics will be read and select passages interpreted. Attention will be paid both to Greek exemplars and to Horace's influence on Latin literature. Students should provide themselves in advance with the Oxford text of Horace.

4 units, autumn and winter quarters (FAIRCLOUGH) TTh 2:15–4:05
autumn, 10; winter, 9

22b. Latin Seminary.

Roman Elegy, the work centering in Propertius. Lectures on the History of Elegy; reading of Catullus, Tibullus, Propertius, and Ovid; text criticism and interpretation; special investigations.

4 units, spring quarter (FOSTER) TF 2:15–4:05
spring, 6
summer, 6

22c. Latin Seminary.

The Aeneid of Virgil is studied in its entirety as a work of art, and selected passages are interpreted. Attention is paid to classical influence on medieval and modern literature. Students should provide themselves in advance with the Oxford text of Virgil.

2 to 4 units, summer quarter (FAIRCLOUGH) TF 2:15–4:05
summer, 6

22d. Seminary in Roman History.

The subject will be the history of Roman municipal institutions. Study of the courses and reports on special problems.

3 units, spring quarter (ELMORE) MWF 2:05–3:05
spring, 6

25. Latin Epigraphy.

Lectures, with practice in the reading of inscriptions, and in the use of the Corpus.

2 units, summer quarter (FAIRCLOUGH) MW 9
summer, 7

45. Quintilian.
Book X of Quintilian is read and interpreted. Rhetoric and literary criticism among the Romans, with a survey of Greek and Roman literature.
2 units, autumn quarter (Fairclough) TTh 10

LAW

Charles Andrews Huston, Joseph Walter Bingham, Arthur Martin Cathcart, Marion Rice Kirkwood, Chester Garfield Vernier, Clarke Butler Whittier, Professors.
Ralph William Aigler, Frederick Campbell Woodward, Austin Tappan Wright, Professors (Summer, 1922).
William Brownlee Owens, Associate Professor.
Oscar Kennedy Cushing, Henrie Granville Hill, Leonard Saxton Lyon, Lecturers.

The Law School

The Law School was established, as a department of the University, in 1893. Its purpose is to provide a thorough legal education for students who are fitted by their maturity and their previous academic training to pursue professional study under university methods of instruction. The curriculum covers three academic years and constitutes an adequate preparation for the practice of law in any English-speaking jurisdiction. Elective courses in Common Law Pleading, Code Pleading, and California Practice are offered.

A comprehensive group of courses in Public Law, of value not only to the law student but to the student who contemplates entering the diplomatic, consular, or other government service, is a feature of the curriculum. A similarly comprehensive group of courses in Commercial Law is provided to meet the needs of students seeking preparation for the various business vocations.

By taking advantage of the four-quarter system, with its opportunities for summer instruction, the Law curriculum may be completed in two and one-fourth calendar years.

Only college graduates and students who have completed substantially two years of work in this University, or its equivalent elsewhere, are admitted as regular students. Under certain conditions persons who cannot meet these requirements, but who are eligible for admission to the University as regular students, may be admitted to the Law School as unclassified students, not candidates for a degree.

The Library

The Law Library contains 26,000 volumes, including complete sets of

the English, Irish, Scotch, Australian, and Canadian reports, the reports of all Federal courts, a practically complete set of the reports of the American States, the Australian States, and the Canadian Provinces, the National Reporter system, the standard collections of cases, the standard English and American legal encyclopedias, the principal American, English, and Canadian digests and citators, sets of the leading American, British, Canadian, and Continental legal periodicals, together with a good collection of textbooks. There is also a somewhat complete collection of compiled laws, session laws, and other statutory material, both Federal and State, as well as British, Canadian, and Australian.

Admission to the Law School

Admission to the professional curriculum in law is granted to students duly enrolled in the University, as follows:

I. To students who have received the degree of Bachelor of Arts, or an equivalent degree, from this University or some other institution of recognized collegiate rank.

II. To students who have received credit for substantially two years of work (80 units) offered by this University, including the six units of English Composition; or the substantial equivalent of these 80 units in some other institution of recognized collegiate rank.

III. In the discretion of the Faculty of Law, to students who can not meet the foregoing requirements, but who are eligible for admission to the University as regular students. (See p. 73.) Such students are termed "unclassified," and are given a certificate in lieu of the degree conferred upon regular students. (After October, 1923, no student will be admitted to professional law courses with fewer than 90 units of credit.)

Admission From Other Institutions

A student from another institution should present his certificate of graduation, or if he does not hold a degree, a detailed statement of his work. In case of doubt the matter should be taken up with the Dean by correspondence before the student presents himself for admission. Students are admitted in any quarter, but in the case of students beginning the study of law the summer and autumn quarters are those in which work can be most advantageously commenced.

The Degree of Bachelor of Arts

Students registered in the Law School will be recommended by the Law Faculty for the degree of Bachelor of Arts in the pre-legal curriculum as follows:

1. Students admitted to the University on or after October 1, 1920, upon the completion of the number of units and grade points required by the University for graduation with the Bachelor's degree, provided that these units shall have included: (*a*) the work of the Lower Division or its substantial equivalent in some other institution; (*b*) studies under the guidance of the Law Faculty covering ninety units. These studies must include the first-year professional law courses. All the other courses are elective, subject to the approval of the Faculty of Law. Additional professional law courses not to exceed twenty-seven units may be chosen. As a general rule the elective studies should be mainly selected from the departments of Economics, English, History, Law, Philosophy, and Political Science.

Attention is directed to the course in Roman Law given in the Latin Department.

It will be noted that under this arrangement a student who wishes to pursue more than three years of law studies while in the University may count sixty-five units, substantially one and a half years of professional work toward his A. B. degree.

2. Students admitted to the University prior to October 1, 1920, may at their option complete the program for the degree of Bachelor of Arts upon which they have begun, or substitute the plan outlined in (1) above.

The Degree of Juris Doctor

Students who have received the degree of Bachelor of Arts, or its equivalent, from this University or from some other institution of recognized collegiate rank, and who have satisfactorily completed courses in law aggregating 115 units (the equivalent of three full years of professional study of law), and who have otherwise satisfied the requirements of the University and of the Law School, will be granted the degree of Juris Doctor (J. D.). Since a limited number of units of law studies may be counted toward the degree of Bachelor of Arts (see above), the requirement for the degree of Juris Doctor may be satisfied by four years of undergraduate and two years of graduate study. It is insisted, however, that not more than forty of the units of credit in law received by a student while an undergraduate in this or another university shall be counted toward the degree of Juris Doctor; except that a student who has, while an undergraduate, accumulated more than forty units of credit in law, may count toward the degree of Juris Doctor such of the additional units as have not been counted toward his A. B. degree.

[Note.—Students who are recommended by the Faculty of the Law School for the degree of Bachelor of Arts in the pre-legal curriculum may satisfy the requirements for the degree of Juris Doctor by two additional years of professional law study.]

Candidates may be presented for graduation in January, April, June, and October. No degree will be conferred upon any person who has not spent at least one academic year in residence at this University and received during that time forty-five units of credit, of which at least thirty-eight must be in professional law courses; nor upon anyone who has not spent at least nine quarters of resident study in this or some other recognized law school.

Curriculum

Fundamental courses, which are listed below as first-year courses, are prescribed. Courses listed as second- and third-year courses may be taken in any order consistent with their special prerequisites, but the courses in Administrative Law, Conflict of Laws, Constitutional Law, Law Against Perpetuities, Private Corporations, Municipal Corporations, Evidence, and California Practice may not be taken, ordinarily, before the third year.

Preliminary Course

1. Introductory Course.
Lectures on the function and nature of law; observation of the processes of the preparation and trial of an action at law; analysis of series of selected cases.
2 units, spring quarter (Huston, Owens) TTh 2:05
spring, 77

First-Year Courses

2a. Contracts I.
Mutual assent, including offer and acceptance; the statute of frauds; illegality; contracts under seal; joint and several contracts. Williston, Cases on Contracts, and selected cases.
4 units, autumn quarter (Whittier)
4 units, summer quarter, 1st half (8 recitations weekly) (Aigler)
autumn, 96; summer, 30

2b. Contracts II.
Consideration; beneficiaries; assignments; express conditions. Williston, Cases on Contracts, and selected cases. Prerequisite: Contracts I.
3 units, winter quarter (Whittier)
winter, 72

2c. Contracts III.
Defenses arising from breach of implied conditions, prevention, incapacitation and repudiation; excuses for nonperformance of conditions; anticipatory breach; impossibility; discharge of contracts. Williston, Cases on Contracts, and selected cases. Prerequisites: Contracts I and II.
4 units, spring quarter (Whittier)
spring, 61

3a. Torts I.
Principles of tort liability as developed in the action of trespass; justification and excuse; negligence as a basis of liability; common law and statutory duties of

care; legal cause; contributory negligence. Ames and Smith, Cases on Torts (Pound's ed.), and selected cases.

4 units, autumn quarter (CATHCART)
4 units, summer quarter, 2d half (8 recitations weekly) (CATHCART)
autumn, 76; summer, 25

3b. Torts II.

Trespass on land by animals; injuries by animals; dangerous use of land; deceit; defamation, slander, libel, privilege, malice; malicious prosecution; interference with social and business relations, inducing breaches of duty, fair and unfair competition, strikes, boycotts, business combinations. Ames and Smith, Cases on Torts (Pound's ed.), and selected cases.

4 units, winter quarter (CATHCART)
winter, 76

4. Criminal Law.

Nature and sources of criminal law; crime as an act; attempts; criminal intent; circumstances affecting illegality of act; specific offenses; crimes against the person, larceny and allied offenses, crimes against the dwelling-house, conspiracy. Case book to be announced.

6 units, spring quarter (VERNIER)
spring, 64

5. Introduction to the Law of Real Property.

Tenure; estates in land with reference to quantity, absolute and qualified character, the time of enjoyment, number and connection of owners, marital interests, creation and transfer at the common law and under the statute of uses. Kirchwey, Readings on Law of Real Property, and selected cases.

3 units, winter quarter (KIRKWOOD)
winter, 61

6. Agency.

Nature of relation; appointment; liabilities of principal for agent's torts, contracts, crimes; liabilities of agent; parties to writings; undisclosed principal doctrines; delegation of agency; termination; ratification. Prerequisites: 8 units of Contracts (Law 2) and 4 units of Torts (Law 3). Wambaugh, Cases on Agency.

6 units, spring quarter (HUSTON)
spring, 34

7. Personal Property.

Possession: Nature, importance, and legal effect. Possessory Interests: arising from tenancy, bailment, lawful seizure. Finding: possession without right. Certain methods of acquiring title to chattels: statutes of limitations; gifts inter vivos; accession; confusion, etc. Liens and pledges; conversion. Warren, Cases on Property.

4 units, autumn quarter (OWENS)
autumn, 53

SECOND- AND THIRD-YEAR COURSES

9. Restraint of Trade.

Contracts and combinations in restraint of trade both at common law and under modern statutes, especially the Sherman Anti-Trust Act and the Clayton Act. Contracts accompanying the sale of a business or of property; exclusive contracts of sale and purchase; contracts of buyers to keep up prices on resale. Combinations and competitive methods of labor units, of trade or manufacturing units, and of

public service units. (No law credit if taken before Law 2 and 3.) Kales, Contracts and Combinations in Restraint of Trade; and selected cases.

4 units, spring quarter (CATHCART)
spring, 34

10. Constitutional Law I.

Making and changing constitutions; function of judiciary in enforcing constitution; separation and delegation of powers; political rights; personal liberty; interstate privileges and immunities of citizens; operation of fourteenth amendment; due process and equal protection of law; procedure; police power; taxation; eminent domain. (No law credit if taken before Law 2 and 3.) Case book to be announced.

3 units, autumn quarter (CATHCART)
autumn, 33

11. Constitutional Law II.

General scope of federal powers; foreign relations, Indians, aliens; territories, dependencies, new states; federal taxation; regulation of commerce; intergovernmental relations; protection to persons accused of crime; retroactive laws in civil cases; state laws impairing obligation of contracts; jurisdiction of federal courts. (Course 10 not a prerequisite.) (No law credit if taken before Law 2 and 3.) Case book to be announced.

3 units, winter quarter (CATHCART)
winter, 39

12. Administrative Law and Public Officers.

Administrative regulations; jurisdiction, discretion, adjudication; enforcement of orders; habeas corpus; mandamus; certiorari; equitable jurisdiction in public law. (No law credit if taken before Law 2 and 3.) Freund, Cases on Administrative Law.

4 units, winter quarter (HUSTON)
winter, 31

13. Municipal Corporations.

Nature; creation; alteration, and dissolution; internal organization; powers; liabilities on contract and for torts; remedies. Open to students having 65 units of credit in law. Macy, Cases on Municipal Corporations, and selected California cases.

4 units, winter quarter (HUSTON) [Not given in 1921–22]

14. Public International Law.

Nature of International Law, relation to Municipal Law. International relations in time of peace; definition, recognition, and classification of states; jurisdiction on land and on the high seas; acquisition and transfer of jurisdiction; nonbelligerent settlement of international controversies. International relations as modified by war; effect of war as between enemies; relations between belligerents and neutrals. Open to all law students and to students in other departments by permission. (No law credit if taken before Law 2 and 3.) Case book to be announced.

4 units, winter quarter (HUSTON) [Not given in 1921–22]

15. Private International Law (Conflict of Laws).

A study of the influence which considerations of the jurisdiction of a state and considerations of foreign law have upon the decisions of courts in cases involving events or things or persons under foreign jurisdiction. The study includes particularly questions of the jurisdiction of states and of courts, of the effects of foreign judgments and decrees, of legal domicile, of marriage and marital interests.

of divorce, of legal capacity, of incorporation, of the devolution and control of estates of decedents, of liability for alleged torts or breaches of contract, and of the existence, extent, control, and disposition of property interests. First quarter prerequisite to second quarter. Beale, Cases on Conflict of Laws (larger edition).

3 units, autumn quarter; 4 units, winter quarter (BINGHAM)
autumn, 7

16. Admiralty.

Admiralty jurisdiction, basis; maritime contracts, torts, and crimes; maritime liens, *ex contractu*, *ex delicto*, priorities, discharge; bottomry and respondentia obligations; salvage; general average. Ames, Cases on Admiralty.

4 units, summer quarter, 1st half (8 recitations weekly) (WRIGHT)
summer, 10

17. Roman Law.

A comparative study of some leading conceptions of the Roman Law, and its modern developments in the Civil Law of Continental Europe and America, with the related conceptions of the Anglo-American Common Law. Required reading.

3 units (HUSTON) [Not given in 1921–22]

18. Title to Land.

I. Original titles founded on possession, prescription, and accretion. II. Modern conveyancing: execution of deeds, description of the property conveyed, creation of easements by implication, covenants for title, estoppel by deed, fraudulent conveyances, recording. Aigler, Cases on Titles to Real Property.

5 units, winter quarter (KIRKWOOD)
winter, 35

19. Landlord and Tenant.

Creation of relationship; duration of tenant's interest, remedies of landlord for non-performance of tenant's obligations, remedies of tenants against landlord, covenants running with the land as between landlord and tenant, rights and duties of landlord and tenant with respect to third persons. Selected cases.

3 units, spring quarter (KIRKWOOD)
spring, 38

20. Rights in the Land of Another.

Natural rights, easements, covenants running with the land, public rights, franchises, rents. Gray, Cases on Property, Vol. IV (2d ed.), and selected cases.

3 units, autumn quarter (KIRKWOOD)
autumn, 16

21. Wills.

Devolution of property of a decedent by intestate succession. The nature of wills and testaments. Probate and its effect. Testamentary capacity. Testamentary intent. Effect of fraud, undue influence, or mistake on the validity of a will. Formalities essential to execution of a valid will. Incorporation by reference. Nullification of wills by (1) revocation; (2) ademption or lapse of legacies or devises; (3) by other circumstances. Republication of wills. Gray's Cases on Property, Vol. IV (2d ed.), and selected cases.

4 units, winter quarter (BINGHAM)
winter, 8

22. Future Interests.

Vested and executory interests; construction of limitations of future interests; powers. Prerequisite: course 5. Kales' Cases on Future Interests.

5 units (BINGHAM) [Not given in 1921–22]

23. The Law Against Perpetuities and Restraints on Alienation.

The common law rule against perpetuities. Illegal conditions; restraints on alienation. The California law on perpetuities and restraints on alienation. Prerequisite: credit for course 22. Kales' Cases on Future Interests, and selected statutes and cases.

3 units (BINGHAM) [Not given in 1921–22]

24. Water Rights.

A course in the intensive study of the law of water supply rights with special reference to water rights in the Western States. Extent of riparian rights and liberties; the law of prior appropriation; relative validity of titles to riparian and non-riparian rights and liberties of use; extinguishment of riparian rights; rights in diffused and underground water; rights in interstate streams. Federal and state powers of control. Bingham's Cases on Water Rights.

4 units, autumn quarter (BINGHAM)
4 units, summer quarter, 2d half (8 recitations weekly) (BINGHAM)
autumn, 28; summer, 12

25. Mining Law.

A course on mining titles under the Federal mining acts, with especial reference to mining rights in the Western States and Alaska. Costigan, Cases on Mining Law.

4 units, winter quarter (BINGHAM)
winter, 10

26. Persons and Domestic Relations.

Infants: period of infancy; infants' contracts and conveyances, torts, and crimes. Husband and wife; rights of husband as to wife's property; rights of each as to earnings, services, and society of the other; husband's interest in damages for tort to wife; husband's liability for torts or contracts of wife; husband's duty to support wife and wife's authority to bind husband by her contracts; married women's contracts, conveyances, and devises; estoppel of married women; liability of married women for torts and responsibility for crimes; contracts, conveyances, and suits between husband and wife; husband's right to custody of wife. Marriage: promise to marry and breach; marriage as a contract or relation; annulment; divorce; separation. Woodruff, Cases on Domestic Relations.

4 units, summer quarter, 1st half (8 recitations weekly) (VERNIER)
summer, 33

27. Quasi-Contracts.

Origin and nature of quasi-contracts: Benefits conferred in misreliance on right or duty; general principles; misreliance resulting from mistake of law; misreliance on invalid contract, on contract unenforceable because of Statute of Frauds, on illegal contract, on contract impossible of performance, on contract unenforceable because of breach, on supposed requirement of valid contract, on non-contract obligation, on ownership of property: Benefits conferred through dutiful intervention in another's affairs: Benefits conferred under constraint; constraint of duress, of legal proceedings, of tax or assessment: Action for restitution as alternative remedy for breach of contract and for tort. Thurston, Cases on Quasi-Contracts.

4 units, summer quarter, 1st half (8 recitations weekly) (WOODWARD)
summer, 28

28. Public Utilities.

The nature, rights, and duties of public service callings and businesses under the common law: railroads and canals; telephone and telegraph; gas, water, irrigation,

and other public utilities. The legislative and administrative regulation of public utilities under the police power, especially rate regulation. The Interstate Commerce Act: scope of commerce regulated by the Act; duties of carriers under the Act; functions of the Interstate Commerce Commission and of the courts in the enforcement of the Act. Burdick, Cases on Public Service, and Frankfurter, Cases under the Interstate Commerce Act.

4 units (CATHCART) [Not given in 1921–22]

29. Bailments and Carriers.

Bailments in general, including bailments for hire, for services to be performed, and for hired use. Special classes of bailments involving ordinary liability: pledges; warehousemen. Special classes of bailments involving exceptional liability; innkeepers; common carriers of goods; common carriers of passengers. Green, Cases on Carriers.

4 units

30. Sales.

Subject-matter of the contract; transfer of property and title; destruction of the goods and risk of loss; obligations of seller and buyer; rights of unpaid seller against the goods; remedies of the seller on the contract; remedies of the buyer on the contract; Statute of Frauds. Woodward, Cases on Sales.

6 units, autumn quarter (VERNIER)
autumn, 48

31. Bills and Notes.

Negotiability; form and inception, form of bill and of note, acceptance, delivery, consideration; negotiation, transfer, holder in due course; liability of parties, maker and acceptor, drawer and indorser, transferor; discharge; effect of the Negotiable Instruments Law. Colson's Huffcut's Cases on Bills and Notes.

6 units, winter quarter (VERNIER)
winter, 40

32. Partnership.

Nature of a partnership, its purposes, and members; creation of partnerships; nature of partner's interest; firm name and good will; mutual rights and duties of partners; actions between partners, at law and in equity; powers of partners; liability for acts of partners in contract and tort; general liability of partners; dissolution and notice; consequences of dissolution; dissolution agreements respecting debts; distribution of assets to creditors, and between partners; limited partnerships. Gilmore, Cases on Partnership.

4 units, autumn quarter (OWENS)
autumn, 15

33. Private Corporations.

The nature of a corporation; promotion of corporation; corporate powers; corporate liability for torts and crimes; unauthorized corporate action, including doctrines of *de facto* incorporations, and *ultra vires* acts; officers, stockholders, and creditors of corporations; reorganization of corporations. Warren, Cases on Corporations (2d ed.).

6 units, autumn quarter (HUSTON)
autumn, 25

34. Insurance.

Marine, fire, and life insurance. Insurable interest in various kinds of policies;

concealments; misrepresentations; warranties and other matters affecting the validity of the contract; amount of recovery; subrogation; waiver, estoppel, election; powers of agents; assignees and beneficiaries.

4 units

35. Suretyship.

Personal suretyship compared with real suretyship (mortgages, pledges, liens, etc.); suretyship obligations compared with insurance and indemnity obligations; guaranty and other forms of suretyship in relation to the Statute of Frauds; suretyship in transactions involving negotiable instruments; fidelity contracts and judicial bonds; surety's defenses due to original defects in his obligation or to its subsequent discharge; surety's right to subrogation, indemnity, contribution, or exoneration; creditor's right to surety's securities. Ames, Cases on Suretyship.

4 units, spring quarter (VERNIER)
spring, 26

36. Mortgages.

All forms of mortgage security, both real and chattel; essential elements of legal and equitable mortgages; legal and equitable rights, powers and remedies of mortgagor and mortgagee with respect to title, possession, rents and profits, waste, collateral agreements, foreclosure, redemption; priorities; marshaling; extension of mortgages; assignment of mortgages; discharge of mortgages. Kirchwey, Cases on Mortgage.

4 units [Not given in 1921–22]

37. Equity I: Contracts.

Development and nature of equity jurisdiction; specific performance of contracts; reformation and rescission of contracts. Ames, Cases on Equity Jurisdiction, Vols. I and II.

5 units, autumn quarter (KIRKWOOD)
autumn, 40

38. Equity II: Trusts.

The Anglo-American system of uses and trusts. Nature of a trust; other sorts of interests and relations distinguished; the creation, transfer, and extinguishment of trust interests, express, resulting, and constructive; validity of trusts; effect of statutes; charitable trusts; priorities and relative validity of competing equities; importance of the legal title to one claiming adversely to a trust or other equitable interest; remedies of creditors against the trust property; duties of the trustee. Scott, Cases on Trusts.

6 units, spring quarter (BINGHAM)
spring, 16

39. Equity III: Torts and Special Equitable Remedies.

Specific reparation and prevention of torts; bills of interpleader; bills of peace; bills *quia timet*: cancellation of contracts, removal of clouds on title, perpetuation of testimony, bills to secure rights of future enjoyment; bills of account. Ames, Cases on Equity Jurisdiction, Vols. I and II.

3 units, spring quarter (KIRKWOOD)
spring, 34

40. Damages.

Respective functions of court and jury in estimating damages; exemplary, liquidated, nominal, direct, and consequential damages; avoidable consequences; counsel fees; certainty, compensation, damages for non-pecuniary injuries; value; interest;

and damages in certain actions of tort and contract. Beale, Cases on Damages (2d ed.).

3 units, winter quarter (HUSTON)
winter, 21

41. Bankruptcy.

Jurisdiction of the United States and the several States; who may be a bankrupt; who may be petitioning creditors; acts of bankruptcy; what property passes to the trustee; provable claims; duties and powers of the bankrupt and his trustee; protection, exemptions, and discharge. Williston, Cases on Bankruptcy.

4 units, summer quarter, 2d half (8 recitations weekly) (WOODWARD)
summer, 29

42. Common Law Pleading.

The common law forms of action, especially the causes of action which could be litigated in each form of action and the relation of the forms of action to each other: the substantial allegations required in a declaration or complaint founded on any of the more usual causes of action at law: the pleas of the defendant, the defenses available under each and especially the nature and scope of the common law general issues. Principles of pleading dealt with in the course on Code Pleading, so far as possible, will not be considered in this course. Whittier and Morgan, Cases on Common Law Pleading.

4 units, summer quarter, 2d half (8 recitations weekly) (WHITTIER)
summer, 18

43. Code Pleading.

The civil action; parties; splitting and joining actions; the complaint, including the caption, the statement of facts and the prayer for relief; the answer, including general and specific denials, affirmative defenses and counterclaims; the demurrer; the reply; motions; bills of particulars; amendment and aider; construction of pleadings. Open to students having 65 units of credit in law. Selected cases.

4 units, spring quarter (CATHCART)

44. Evidence I.

Introductory topics: Witnesses: competency; privilege; examination; impeachment; rehabilitation. Rules of exclusion: conjectural evidence; character evidence; hearsay and the exceptions to its exclusion; opinion. The proof of writings: authorship; contents. Real evidence. Open to students having 65 units of credit in law. Thayer, Cases on Evidence (2d ed.).

3 units, autumn and winter quarters (WHITTIER)
autumn, 20; winter, 15

45. Evidence II.

This course deals with certain procedural and substantive law topics commonly considered in connection with evidence though not strictly a part of that subject. They are: functions of court and jury; judicial notice; presumptions; burden of proof; the parol evidence rule including construction of instruments. Open to students having 65 units of credit in law. Thayer, Cases on Evidence (2d ed.).

3 units (WHITTIER) [Not given in 1921–22]

46. California Practice I.

Organization and jurisdiction of courts; court records and files; proceedings prior to judgment, including: service and return of summons and motions relating thereto, appearances, provisional remedies, such as attachment, arrest, etc., *lis pendens*, the trial, exceptions and findings, verdict; the judgment, its entry and

satisfaction; proceedings subsequent to judgment, including: stay of execution, costs, execution, motion for new trial, appellate proceedings; probate and administration proceedings. Prerequisite: course 43. Open to students having 65 units of credit in law. California Code of Civil Procedure; also selected California cases.

3 units, winter quarter (OWENS)
winter, 24

47. California Practice II.

Trial practice, special proceedings, including writs of certiorari, mandamus, and prohibition; introduction to jurisdiction and procedure of Federal courts. Prerequisites: courses 43 and 46. Open to students having 65 units of credit in law. California Code of Civil Procedure; also selected California cases.

3 units, spring quarter (OWENS)
spring, 22

48. Moot Court.

(*a*) Instruction in Legal Bibliography and the use of law books. (*b*) Argument of cases on submitted statements of facts; briefs; preparation of opinions.

2 units, spring quarter (OWENS) [Not given in 1921–22]

49. Business Law.

Contracts, their foundation, operation, and discharge; sales of goods; insurance; suretyship and guaranty; bailments and carriers; negotiable instruments; principal and agent; master and servant; partnerships and joint-stock companies; corporations; property in land and movables; mortgages; landlord and tenant. This course may not be taken by law students, but is open to all other students who have 80 units of credit. Selected cases.

3 units, winter and spring quarters (continuous) (OWENS)
winter, 131; spring, 66

50. Problems in Judicial Administration.

The difficulties of judicial organization and procedure with the remedies adopted or proposed. Special topics such as: sources of procedural law, statutes and rules of court; selection and tenure of judges; court organization; special courts; arbitration and conciliation; the bar; legal aid; costs; simplification of pleadings; rules of evidence; the jury; appeals; uniformity. Primarily for graduate students but open to well prepared undergraduates in their fourth year upon obtaining permission from the instructors. Should be preceded when possible by the courses in practice, pleading, and evidence. May not be counted toward a degree in law unless the student previously has obtained credit in Law 2 and 3.

4 units, spring quarter (WHITTIER, OWENS)
spring, 16

SPECIAL LECTURES

In addition to the regular professional courses, a few special lectures, most of them of a practical character, are given each year by experienced lawyers of the California Bar.

LIBRARY

George Thomas Clark, Librarian.
Charles V. Park, Assistant Librarian.
Helen Binninger Sutliff, Chief Cataloguer.
Alice Newman Hays, Reference Librarian.
Elizabeth Hadden, Chief Order Division.
Louise Ophüls, Medical Librarian.
Nina Almond, Hoover War Librarian.
Minna Stillman, Document Librarian.
Herbert Adlington Davis, Law Librarian.

The Library is open during term time on week days from 8 a. m. to 10 p. m., except on Saturdays, when it is closed at 5 p. m. The main reading room, periodical room, and Timothy Hopkins room are open on Sundays from 2 p. m. to 6 p. m. During vacations the hours are from 8:30 a. m. to 4:30 p. m., Saturdays to 12:30 p. m. The shelves are open to members of the faculty, and, on recommendation of their instructors, to students engaged in advanced work. Books, other than works of reference, not required for class use or otherwise restricted, are available for circulation under prescribed rules to those entitled to the privileges of the Library. A handbook giving information relative to the Library and how to use it may be obtained upon request.

The Library is available for use by all registered students without the payment of additional fees. Visitors regularly attending lecture courses or other university exercises, but not registered, are entitled to the privileges of the Library upon payment of a fee of $1.25 per quarter.

Including the departments of law and medicine, the Library comprises more than 350,000 volumes. The income of the Jane Lathrop Stanford Jewel Fund, certain other special funds, and fees provide for its maintenance and growth.

The Library building is well adapted to meet the needs of advanced and graduate students. It contains nine rooms in which seminar classes may be held; and one large room which serves as a reading room for students in seminar classes. Tables on each floor of the stack make it possible for any graduate student to work in easy reach of the material in his field.

Two collections of especial interest to research workers in the fields of history and economics will be found in the Hoover War Library and the Document room, both on the first floor.

The Document Division brings together the Library's collection of city, state, and federal documents. It is especially strong in the publications of the United States, Great Britain, Canada, and Australia.

The publications of other countries are being added as fast as circumstances permit. The collection now numbers 40,000 volumes, besides much unbound material.

The Hoover War Library contains some seventy thousand printed and manuscript items on all aspects of the Great War, 1914–18, and for all nations, whether warring or neutral. It is rich in government documents, in delegation propaganda at the peace conferences, in files of the publications of social and political societies, and in newspapers. A special reading room facilitates the use of the collection.

Other noteworthy special collections are:

The Jordan Library of Zoology.—A collection consisting largely of works on ichthyology, to a considerable extent made up of a vast number of authors' separates, which have been accumulated by Chancellor Jordan, bound in convenient form, indexed, and catalogued. The more voluminous publications, such as the works of Cuvier, Lacépède, Bloch, Bleeker, Günther, and others, are well represented. These, supplemented by the proceedings of various societies and institutions, make a collection of books of great value to advanced students and investigators in ichthyology. The library is conveniently arranged, in the zoology building, near the laboratories and collections.

The Barbara Jordan Library of Birds.—A memorial collection presented by Chancellor Jordan, to which frequent additions are made. While some of the older texts are not represented, it is a good working library of ornithology and contains the principal modern works.

The Branner Geological Library.—The geological library (room 333) is the result of twenty-five years of painstaking acquisition by Dr. John Casper Branner. It includes a vast wealth of material relating to geology, paleontology, mineralogy, geography, mining and metallurgy. It is especially well equipped with files of journals and the transactions of scientific societies, together with a large collection of state and government reports.

The Hopkins Railway Library.—A collection of approximately 10,000 volumes and pamphlets dealing with the subject of transportation. In 1892 Mr. Timothy Hopkins, of San Francisco, presented to the University his private library on railroads, consisting of about 2,000 books, personally providing for its maintenance and growth for many years. The collection is general in scope, intended to embrace all subjects touching on the building, maintenance, and operation of railways. It is especially rich in state and government reports, as well as in reports of individual railroads both in the United States and Europe, with much material pertaining to their history.

The Law Library.—A library of about 25,000 volumes, selected with

care and adequate for the study of English and American law. It contains practically complete sets of the reports of the courts of England, Scotland, Ireland, Canada, the United States and the several states, together with a valuable collection of statutes, treatises, and periodicals.

The Lane Medical Library.—Founded by the directors of Cooper Medical College in accordance with the bequest of Mrs. L. C. Lane. The library contains about 50,000 volumes, and is particularly rich in its collection of medical and allied periodicals. The leading domestic and foreign journals are currently received. The library building, erected in 1912, is opposite the other medical buildings, on the corner of Sacramento and Webster streets, San Francisco.

Two noteworthy special collections are the Barkan library of ophthalmology and oto-laryngology, endowed by Dr. A. Barkan, professor emeritus of ophthalmology, and the new library on the history of medicine, supported by Stanford University and Dr. A. Barkan conjointly. To date this library contains about 5,000 volumes.

MATHEMATICS

Robert Edgar Allardice, †Rufus Lot Green, Hans Frederik Blichfeldt, Professors.

George David Birkhoff, Lecturer in Mathematics (Summer Quarter).

Heinrich Wilhelm Brinkmann, Instructor in Mathematics (Summer Quarter).

Dorothy Crever, Whittier Worthington Wallace, Assistants in Instruction.

The courses in this department have been arranged to meet the wants of two classes of students—students whose major subject is Mathematics, and students who, while taking their major in some other department, desire to include some mathematics in their course. Students in Engineering are provided for in the Department of Applied Mathematics.

For students whose major subject is Mathematics the following program of work is recommended: In the first year, courses 3 and 4; in the second year, courses 5 and 6; in the third year, courses 10, 11, and 12; while the work during the fourth year and for graduate students may be selected from the remaining courses. The advanced courses will, for the most part, be given once in two or once in three years, and it is hoped that the advanced students will thus have the

† Absent on leave, 1921–22.

opportunity of studying the more important branches of modern mathematics.

Students whose major subject is Mathematics are recommended to begin the study either of French or of German in their freshman year.

Students who desire to take one or more years of Mathematics as a part of a liberal training are recommended to begin their work in this department with one or more of the courses 1, 2, 3, and 7.

The TEACHER'S RECOMMENDATION.—For a minor in Mathematics the following courses are required: 1, 2, 3, 4, 5, 9; for a major, course 6, in addition to these courses.

1. Trigonometry.

Elementary course with applications involving logarithmic calculation.

4 units, autumn, *winter, and *summer quarters (CREVER, BRINKMANN)
autumn, 44; winter, 25; summer, 16 (autumn) MWF 9; (winter) MWF 10

2. Solid Geometry.—Elementary course.

3 units, winter quarter (WALLACE) MWF 11
winter, 4

3. Algebra.

Fundamental laws, degree, symmetry, indeterminate coefficients, remainder theorem, factors, introduction to theory of equations. Presupposes entrance credit in elementary algebra.

5 units, autumn and winter quarters (CREVER) MTWThF 8
4 units, summer quarter (MANNING) TWThF 9
autumn, 31; winter, 17; spring, 40; summer, 7

4. Coördinate Geometry.

An elementary course in the analytic geometry of the conic sections. Presupposes course 3.

5 units, summer quarter (MANNING) MTWThF 8
summer, 3

5. Coördinate Geometry.—A continuation of course 4.

5 units, autumn quarter (WALLACE) MTWThF 10
autumn, 3

6. Differential and Integral Calculus.—An elementary course.

5 units, winter and spring quarters (ALLARDICE) MTWThF 10
winter, 8; spring, 7

7a. General Course.

A brief and elementary survey of the principles of algebra, trigonometry, analytic geometry, and calculus. Presupposes elementary algebra and plane geometry.

5 units, autumn and winter quarters (BLICHFELDT) MTWTF 9
autumn, 17; winter, 10

7b. General Course.

A continuation of Course *7a;* particularly of the Calculus, with an introduction to the theory of Statistics.

5 units, spring quarter (BLICHFELDT) MTWThF 9
spring, 5

8. Advanced Course.
5 to 10 units, summer quarter (BRINKMANN) By arrangement
summer, 7

9. Plane Geometry.
4 units, autumn quarter (ALLARDICE) MTWTh 11
autumn, 7

10. Advanced Calculus.—A continuation of course 6.
5 units, autumn quarter (ALLARDICE) MTWThF 9
autumn, 7

10a. Theory of Relativity.
1 unit, summer quarter (BIRKHOFF)
summer, 2

11. Differential Equations.
5 units, winter quarter (BLICHFELDT) MTWThF 10
winter, 9

12. Theory of Functions.—An elementary course.
5 units, spring quarter (ALLARDICE) [Not given in 1921–22]

15. Advanced Algebra.
4 units, autumn quarter (BLICHFELDT) TWThF 10
autumn, 8

17. Mathematical Theory of Investments.
An introductory course presupposing a college course in algebra or two years of algebra in the high school; also, ability to use logarithms.
5 units, winter quarter (GREEN) [Not given in 1921–22]

18. Life Insurance.
An introduction to actuarial theory. Presupposes course 17.
5 units, spring quarter (GREEN) [Not given in 1921–22]

19. Definite Integrals.
5 units, spring quarter (ALLARDICE) MTWThF 11
spring, 5

20. Theory of Numbers.
2 units, spring quarter (BLICHFELDT) TTh 10
spring, 11

21. Projective Geometry.
5 units, winter quarter (ALLARDICE) MTWThF 11
winter, 6

22. Non-Euclidean Geometry.
3 units, spring quarter (BLICHFELDT) MWF 10
spring, 9

23. Selected Readings.
3 or 4 units (ALLARDICE, GREEN, BLICHFELDT) By arrangement
autumn, 5; winter, 5

MEDICINE

WILLIAM OPHÜLS, Dean.
ALBION WALTER HEWLETT, Secretary of the Medical Faculty.

ADMISSION TO THE MEDICAL SCHOOL

1. Graduation from high school (or its equivalent), comprising fifteen recommended units, as defined by the University for admission to the freshman class. (*Special students* are not admitted to registration in Medicine.)

2. Three full years of college work, totaling 135 quarter units (90 semester units), of a grade equivalent to that of Stanford University (counting as many grade points as there are units). The required work in these three years is that laid down by the Association of American Medical Colleges in Physics, Chemistry, Biology, and English, together with a reading knowledge of either French or German, and additional work in Chemistry and Biology, as indicated below.

3. In addition to the A. A. M. C. minimum in Chemistry, the University requires Qualitative and Quantitative Analysis and Organic Chemistry.

4. In Biological Science the University requires 15 quarter units, or 10 semester units, made up of courses in General Zoology (or General Biology), Comparative Anatomy of the Vertebrates, and General Vertebrate Embryology, substantially equivalent to the courses in those subjects given at Stanford University as indicated below.

No conditions are permitted. Candidates for admission who in June, 1922, will have completed the above requirements except for a few units in collegiate subjects should plan to make up these deficiencies in full by attendance at summer sessions during the summer of 1922.

In practice the above requirements as applied to the pre-medical courses of Stanford University students work out about as follows:

CHEMISTRY

Course 3 (General Inorganic Chemistry), 2 units.
Course 4 (General Inorganic Chemistry), 2 units.
Course b (General Inorganic Laboratory), 3 units.
Courses 20 and d (Qualitative Analysis), 6 units.
Courses 22 and g (Quantitative Analysis), 5 units.
Course 10 (Organic Chemistry), 5 units.

Students without entrance credit in Chemistry take courses 1, 2, and *a* instead of 3 and 4 and *a*. Total, 23 (or 28) quarter units (15⅓ (or 18⅔) semester units).

PHYSICS

Course 1a (Mechanics and Heat), 5 units.
Course 1b (Electricity and Light), 5 units.
Course 3 (Special Topics), 3 units.
Total, 13 quarter units (8⅔ semester units).

BIOLOGY

Course 1 (General Zoology), 5 units (or General Biology 1, 2, and *a*, 9 units).
Course 11 (Comparative Anatomy of the Vertebrates), 5 units.
Course 13 (Vertebrate Embryology), 5 units.
Total, 15 quarter units (10 semester units).

ENGLISH

Nine quarter units (6 semester units).

FRENCH OR GERMAN READING KNOWLEDGE

This varies somewhat with the ability of the student, but implies at least the equivalent of a year's work of 15 (quarter) units, based upon High School courses.

(Applicants for admission or advanced standing in the Medical School should communicate with The Registrar, Stanford University, California; those desiring information concerning the upper classes of the Medical School (*i. e.*, from the sixth to the twelfth quarters), should communicate with The Dean, Stanford University Medical School, 2398 Sacramento St., San Francisco, Cal.)

The Curriculum in Medicine

The required period of study for the degree of Doctor of Medicine is twelve quarters plus the interne year. The work of the first five quarters is given at Stanford University and is devoted to anatomy, bacteriology, chemistry, embryology, histology, neurology, experimental pathology, physical diagnosis, and physiology. The next seven quarters are devoted to work in the pharmacological, pathological, and clinical laboratories, and in the hospital wards and the out-patient department in San Francisco. The last year is spent in hospital work.

In order to correlate the work of some of the departments and to facilitate research in others, all courses in Medicine, except those in anatomy, bacteriology, chemistry, experimental pathology, and physiology, are given in San Francisco. By reducing the number of required hours to approximately the number decided upon by the Association of American Medical Colleges, the student's opportunity for taking optional and elective courses has been increased and time obtained for thesis work.

Fees

The tuition fee for all students registering for the first time in the School of Medicine in and after October, 1921, is $85 per quarter; the guild fee is $2 per quarter. Medical students desiring membership in the Stanford Union, Women's Clubhouse, or Associated Students, or the use of the gymnasia and athletic grounds will pay the usual fees designated for these purposes. There will be no other fees aside from those listed above, except that a deposit to cover breakage or loss of apparatus and materials may be required in any department, such

deposits being returnable, less charge for breakage, loss, or wear and tear of apparatus. The total deposits for this purpose may vary from $10 to $20 per annum.

I. ANATOMY

ARTHUR WILLIAM MEYER, FRANK MACE MCFARLAND, Professors.
CLARA S. STOLTENBERG, Associate Professor.
†EDGAR DAVIDSON CONGDON, Assistant Professor.
EMILY M. BARTLETT, Assistant.

[For outline of courses, see under Anatomy, p. 119.]

II. BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

WILFRED HAMILTON MANWARING, Professor.
WILLIAM LUDLOW HOLMAN, EDWIN WILLIAM SCHULTZ, Associate Professors.

[For outline of courses see under Bacteriology and Experimental Pathology, p. 124.]

III. CHEMISTRY

ROBERT ECKLES SWAIN, Professor.

16. Biochemistry.
(See course 16, Department of Chemistry.)
5 units (55 hours), autumn and *summer quarters (SWAIN) MTWThF 8

m. Biochemistry.
A laboratory course. Should be preceded by courses 20 and *d* (Qualitative Analysis), 22 and *g* (Quantitative Analysis), and 10 (Organic Chemistry) in the Department of Chemistry. (See Chemistry *l*.)
4 units (132 hours), autumn and *summer quarters (SWAIN)
5 afternoons, 1:05–4:05

(Students enrolled as Medical students will be required to deposit $15 breakage fee for course 2; other University students will pay the usual fee of $30.)

IV. HYGIENE AND PUBLIC HEALTH

WILLIAM OPHÜLS, Acting Executive.

1. Hygiene.—Three quarters required.
1 hour (11 hours), spring quarter, 3d medical year T 1–2
1 hour (22 hours), autumn and winter quarters, 4th medical year (OPHÜLS)
autumn, 22; winter, 18; spring, 29 F 4–5

† Absent on leave, 1921–22..

V. MEDICINE

Albion Walter Hewlett (Executive), Thomas Addis, Professors.

Harry Everett Alderson, William Fitch Cheney, Charles Miner Cooper, Harold Phillips Hill, Walter Frank Schaller, Clinical Professors.

Ernest Charles Dickson, Harold Kniest Faber, Associate Professors.

Walter Whitney Boardman, Julian Wolfsohn, Associate Clinical Professors.

W. Edward Chamberlain, Henry George Mehrtens, Henry Herbert Yerington, Assistant Professors.

George De Forest Barnett, William Redwood Price Clark, Millicent Mary Cosgrave, Thomas George Inman, [Harry Reeves Oliver], Alfred Cummings Reed, [Roland Beatty Tupper], Assistant Clinical Professors.

Robert Reid Newell, Harry Alphonso Wyckoff, Instructors.

Clement H. Arnold, Joseph H. Catton, Norbert J. Gottbrath, Maude Noble Haven, William Kenney, Mary H. Layman, Arthur Aloysius O'Neill, Philip Hale Pierson, Jay Marion Read, Chester Durbin Sewall, Clinical Instructors.

Wallace H. Barnes, Mabel Finney Bennett, John Graves, James A. Guilfoil, Frank A. Kinslow, Frederick W. Kroll, Mary J. Mentzer, Henry T. Rooney, Hermann Schussler, Jr., Harry Spiro, Assistants.

Adelaide Brown, Lecturer on Child Hygiene.

Arthur John Ritter, Lecturer on Mental Deficiency.

Guy Stevens Farrington, Lecturer on Speech Defects.

Morton R. Gibbons, Lecturer on Medical Aspects of Insurance.

[For statement in regard to required work, see Announcement of the School of Medicine.]

Courses for Second-Year Medical Students

1. Physical Diagnosis.

4 hours (88 hours), winter and spring quarters (winter, Barnett, at Stanford University; spring, Reed, Read, in San Francisco) TTh 9:30–10:30; S 8–10
or, 7½ hours (82 hours), autumn quarter (Reed, Read, in San Francisco)
autumn, 15; winter, 33; spring, 28 M 9:30–11; TTh 9:30–11:30; S 8–10

2. Clinical Pathology.

4 hours (44 hours), autumn or spring quarter (Wyckoff)
autumn, 13; spring, 28 F 8:30–10:30, S 10:30–12:30

Courses for Second-Year Medical Students

3. Diseases of the Thoracic Organs.

4 hours (44 hours), autumn or spring quarter (Dickson) MW 9:30–11:30
autumn, 14; spring, 15

4. Diseases of the Digestive Tract.
4 hours (44 hours), spring or summer quarter (Boardman, Kroll, Luttrell) MW 9:30–11:30
spring, 14

5. Infectious Diseases.
3½ hours (38 hours), winter quarter (Dickson) M 9:30–11, W 9:30–11:30
winter, 28

6. Diseases of the Kidneys, the Blood, and of Metabolism.
3 hours (33 hours), autumn or summer quarter (Addis, Havens) TW 8:30–9:30, S 10:30–11:30
autumn, 13

7. History Taking.—(Elective.)
3 hours (33 hours), any quarter (Arnold) Daily 9:30–11:30
autumn, 1; winter, 8; spring, 7

8. Tropical Diseases.—(Elective.)
2 hours (22 hours), spring quarter (Reed) T 8:30–9:30, S 10:30–11:30
spring, 17

9. Diseases of the Endocrine Glands.—(Elective.)
1 hour (11 hours), spring quarter (Arnold) F 11:30–12:30
spring, 18

10. Experimental Medicine.—(Elective.)
3 hours (33 hours), autumn quarter (Hewlett) TThF 4:30–5:30
autumn, 13

11. Physical Therapeutics.
2 hours (22 hours), winter quarter (Langnecker) MT 2–3
winter, 27

12. Dietetics.—Lectures and recitations. (Elective.)
2 hours (22 hours), spring quarter (Addis) MT 3, Th 4:30–5:30
spring, 28

13. Practical Therapeutics and Prescription Writing.
4 units (44 hours), spring quarter (Hewlett) MF 1:30–3, W 8:30–9:30
spring, 29

14. Roentgenography.—(Elective.)
1 hour (11 hours), winter quarter (Chamberlain) M 4–5
winter, 28

15. Serology.—(Elective.)
2 hours (22 hours), spring quarter (Wyckoff) W 2:30–4:30

16. Clinical Bacteriology.—(Elective.)
(Dickson) By arrangement

17. Pediatrics: Recitation.
2 hours (44 hours), autumn, winter, and summer quarters (Faber, Cosgrave)
(autumn and summer) TTh 10:30–11:30; (winter) W 8:30–9:30; S 10:30–11:30
autumn, 14; winter, 28

18. Infant Feeding, and Formula Preparation.
2 hours (22 hours), any quarter (Yerington, Cosgrave, Layman, Sloan) F 9:30–11:30
autumn, 4; winter, 10; spring, 5

19. Communicable Diseases.—(Isolation Hospital.)
2 hours (22 hours), any quarter (O'Neill) F 10–12
autumn, 9; winter, 9; spring, 8

20. Lectures on Pediatrics.—(Elective.)
1 hour (11 hours), autumn, spring or summer quarter (O'Neill, Ritter, Faber, and others) Th 1:30–2:30
autumn, 14; spring, 29

21. Neurology.
2 hours (44 hours), winter and spring quarters (Inman) Th 10:30–11:30
winter, 28; spring, 29

For Fourth-Year Medical Students

22. Set Clinic in Medicine.—(Lane Hospital.) (Elective.)
1 hour (11 hours), any quarter (Hewlett, Reed, Dickson) W 11:30–12:30
autumn, 23; winter, 38; spring, 32

23. Set Clinic in Medical Specialties.—(Lane Hospital.) (Elective.)
1 hour (11 hours), any quarter (Faber, Yerington, Alderson, Schaller, Pierson) M 11:30–12:30
autumn, 17; winter, 38; spring, 37

24. Ward Work.—(Lane Hospital.) Students taking this course are required to take Medicine 22 also.
7 hours (77 hours), any quarter (Hewlett, Cheney, Reed, Dickson) TWTh 8:30–9:30, S 10–11:30, W 10:30–11:30, M (or Th) 9:30–11:30
autumn, 7; winter (2 sections), 5, 7; spring, 6

25. Ward Work and Clinics.—(San Francisco Hospital.) (One quarter is required; a second quarter may be elected.)
7 hours (77 hours), autumn, *winter, or *spring quarter (Hill) TW 9–12, F 10–11
autumn, 8; spring, 8

26. Out-patient Work in Internal Medicine.—(Elective.)
4 to 6 hours (44 to 66 hours), any quarter (Arnold) MTh 9:30–11:30, W 10:30–11:30, S 10–11:30
autumn, 3; spring, 5

27. Out-patient Work in Tuberculosis.—(Elective.)
2 hours (22 hours), any quarter (Pierson) MTh 9:30–11:30
autumn, 1; winter, 2; spring, 2

28. Tuberculosis Clinic.—(San Francisco Hospital.) (Elective.)
1 hour (11 hours), autumn, winter, or spring quarter (Clark) F 8:30–9:30
autumn, 8; winter, 7; spring, 8

29. Neurology Clinic.—(San Francisco Hospital.) (Elective.)
2 hours (22 hours), autumn, *winter, or *spring quarter (Wolfsohn) S 10–12
autumn, 8; winter, 7; spring, 8

30. Out-patient Work in Neurology.—Limited to two students. (Elective.)
6 hours (66 hours), any quarter (Mehrtens) MTh 9:30–11:30, W 10:30–11:30, S 10–11:30

31. Cutaneous Medicine.
2 hours (22 hours), autumn or *winter quarter (Alderson) M 8:30–9:30, W 9:30–10:30
autumn, 13; winter (2 groups), 12, 4

32. Out-patient and Ward Work in Pediatrics and Cutaneous Medicine.

6 hours (66 hours), any quarter (Faber, Alderson, Cosgrave, Yerington) MTh 9:30–11:30, W 10:30–11:30, S 10–11
autumn, 8; winter, 7; spring, 4.

33. Roentgenoscopy.—(Elective.)

1 hour (11 hours), winter quarter (Chamberlain, Cutting) By arrangement
winter, 12

34. Psychiatry.

1½ hours (50 hours), autumn, winter, and spring quarters (Meirtens) M 1:30–3
autumn, 22; winter, 19; spring, 19

35. History of Medicine.

1 hour (11 hours), winter quarter (Ophüls, Stillman, Hewlett, Spalding) T 3:30–4:30
winter, 19

36. Jurisprudence.

1 hour (11 hours), autumn quarter F 3–4
autumn, 22

37. Military Medicine.

1 hour (11 hours), winter quarter W 3–4
winter, 18

38. Industrial Accident Insurance.—(Elective.)

1 hour (11 hours), spring quarter (M. R. Gibbons and others) M 4–5
spring, 14

39. Life Insurance, Medical Aspects.—(Elective.)

1 hour (11 hours), autumn quarter (M. R. Gibbons and others) T 4–5
autumn, 20

VI. OBSTETRICS AND GYNECOLOGY

Alfred Baker Spalding, Professor.

George Burbank Somers, Clinical Professor.

Ludwig Augustus Emge, Assistant Professor.

Henry Walter Gibbons, Frank Robert Girard, Henry Augustus Stephenson, William Emerson Stevens, Assistant Clinical Professors.

Chester Biven Moore, Albert Victor Pettit, Karl Ludwig Schaupp, Clinical Instructors.

Harry E. Clay, Hans von Geldern, Peter N. Jacobsen, Lewis Michelson, Arthur L. Munger, Assistants.

Francis B. Carpenter, Lecturer.

(Students before graduation must pass in at least 165 hours of Obstetrics and 100 hours of Gynecology, and must present certificates of attendance for at least 10 confinements.)

1. Obstetrics, Laboratory.
3 hours (33 hours), autumn or *summer quarter (autumn, PETTIT; summer, MUNGER) TF 1:30–3
autumn, 14; summer, 14

2. Obstetrics.
2 hours (22 hours), autumn or spring quarter (autumn, SPALDING; spring, STEPHENSON) TTh 8:30–9:30
autumn, 15; spring, 28

3. Obstetrics.
3 hours (33 hours), winter quarter (SPALDING) MTF 8:30–9:30
winter, 28

4. Obstetrics.
2 hours (22 hours), spring quarter (SPALDING) MF 8:30–9:30
spring, 28

5. Ward Rounds—Obstetrics.
1 hour (11 hours), any quarter (autumn, EMGE; winter, RESIDENT; spring, STEPHENSON; summer, MOORE) W 1:30–2:30
winter, 5; spring, 11

6. Manikin Exercises.
1 hour (11 hours), autumn and winter quarters (SCHAUPP) W or F 1:30–2:30
autumn, 8; winter, 2

7. Women's Clinic.—(Elective.)
2 hours (22 hours), any quarter (GIBBONS) TWThF 9:30–11:30
autumn, 7; winter, 2; spring, 6; summer, 1

8. Cystoscopy.—(Elective.)
1 hour (11 hours), any quarter (autumn and winter, STEPHENSON; spring and summer, MICHELSON) Th 9:30–10:30
autumn, 2; winter, 1; spring, 2; summer, 1

9. Hospital Obstetrics.—(Required.)
2 weeks (56 hours), any quarter (autumn and winter, STEPHENSON; spring, MUNGER; summer, MOORE)
autumn, 8; winter, 6; spring, 4; summer, 12

10. Ward Rounds, Gynecology.—(Elective.)
1 hour (11 hours), autumn and winter (EMGE) W 1:30–2:30
autumn, 6; winter, 7

11. Operating Room, Lane Hospital.—(Elective.)
Prerequisites: courses 2, 3, and 4.
1 hour (11 hours), any quarter (autumn, winter, spring, SPALDING; summer, EMGE) F 1:30–2:30
autumn, 18; winter, 17

12. Operating Room, San Francisco Hospital.—(Elective.)
Prerequisites: courses 2, 3, and 4.
1 hour (11 hours), autumn, *winter, and *spring quarters (GIRARD) S 8:30–9:30
autumn, 8; winter, 7; spring, 8

13. Gyneoclogy, Laboratory.
3 hours (33 hours), spring quarter (EMGE) M 3–4, F 1:30–3
spring, 19

14. Obstetrics, San Francisco Hospital.—(Elective.)

1 hour (11 hours), autumn or summer quarter (SCHAUPP) F 11–12
autumn, 11

15. Set Clinic in Obstetrics and Gynecology.

1 hour (22 hours), any quarter (autumn, winter, spring, SPALDING; summer, EMGE) S 11:30–12:30
autumn, 14; winter, 36; spring, 35; summer, 14

16. Graduate Courses.

Work will be arranged in the Women's Clinic or in the laboratory for Obstetrics and Gynecology to meet the needs of special workers. Applicants must first register in the Dean's Office and obtain receipt for the required fee.

VII. PATHOLOGY

WILLIAM OPHÜLS, Professor.
JEAN REDMAN OLIVER, Associate Professor.

(The following courses in Pathology are required of Medical students: Pathology 1 (*b*), one quarter; Pathology 3, three quarters.)

1. General Pathology (b).

Prerequisites: Histology, Bacteriology, Pathology 1*a*.

6 hours (66 hours), autumn or spring quarters (OPHÜLS, OLIVER)
autumn, 15; spring, 29 M 8–9, TTh 1:30–4

2. General Pathology.

An optional course of weekly recitations covering the same ground as course 1.

1 hour (11 hours), autumn or spring quarter (OLIVER) By arrangement
autumn, 2

3. Special Pathology.

Prerequisite: General Pathology (*a*) and (*b*).

4 hours (132 hours), any three quarters (OPHÜLS, OLIVER) (autumn, spring, summer) W 2:30–4:30; (winter) W 2:30–4:30; all quarters S 8:30–10:30
autumn, 14; winter, 28; spring, 29

4. General Pathology (a).

A course covering the same ground as the course offered in the Department ot Bacteriology and Experimental Pathology at Stanford University. (Optional.)

8 hours (88 hours), summer quarter (OLIVER) MW 8:30–9:30, 1:30–4:30

5. Clinico-Pathological Demonstrations.

For fourth-year students.

1 hour (11 hours) (OLIVER) F 11:30–12:30
autumn, 5; winter, 7; spring, 3

6. Research Work in the Pathological Laboratory.

(By arrangement.) A deposit of $10 will be required to cover such material as is used by the student in the course of his work. (Optional.)

(OPHÜLS)

VIII. PHARMACOLOGY AND THERAPEUTICS

Paul John Hanzlik, Professor.
Floyd De Eds, Instructor.
Russell V. Lee, Clinical Instructor.
Elizabeth Presho, Assistant.

Second-Year Required Courses

1. Chemical Pharmacology.
This course includes tests for plant constituents and important drugs; the principles of pharmacy and prescription writing, general toxicology, the physical and chemical basis of pharmacology, excretion, methods of administering drugs and reactions with tissues and unicellular organisms. Laboratory exercises, demonstrations, class conferences, and lectures.

Didactic, 16 hours; laboratory, 32 hours, first 5⅓ weeks, spring quarter
(Hanzlik, De Eds) Didactic MWF 1:30–2:30; Lab. MWF 2:30–4:30
autumn, 15; spring, 27

2. Experimental Pharmacodynamics.
Demonstrations and experiments on amphibia and mammals illustration. The class is divided into six groups of three students, each sub-group performing the same experiment.

Conferences, 26 hours, laboratory, 48 hours, last 5⅔ weeks, sixth quarter
(Hanzlik, De Eds)
Lab. MWF 1:30–4:30; Con. TTh 9:30–10:30, W 10:30–11:30, F 8:30–9:30
autumn, 15; spring, 27

Third-Year Required Courses

3. Systematic Pharmacology.
Instruction is given by lectures, demonstrations, and recitations, and treats of the experimental basis, toxicity, and clinical actions, uses, and dosage of the more important drugs. Description and identification of the more important drugs are studied outside of regular hours.

66 hours, autumn and winter quarters (Hanzlik) MTF 1:30–2:30
winter, 28

4. General Therapeutics.
A systematic presentation of the uses of drugs and other agents from the standpoint of diseases, and consists of lectures, recitations, and class drills in prescription writing.

44 hours, spring quarter (Hewlett) MTThF 1:30–2:30

Optional Courses

5. Practical Pharmacy and Dispensing.
For those who desire more experience in the manufacture of pharmaceutical preparations and compounding of prescriptions, a laboratory course is offered in the autumn quarter, in which each student compounds prescriptions and makes typical pharmacopoeial preparations. Prerequisite: course 1. The usual laboratory fee is required. Unlimited. One afternoon, or three hours per week, by arrangement.

3 hours (30 hours), autumn quarter one afternoon, by arrangement

6. Research in Pharmacology and Therapeutics.

Open throughout the year to students for thesis, and graduates with proper qualifications and special interest in these subjects. Work in pharmacology proper may be done independently or under supervision in the department; in clinical pharmacology and therapeutics by collaboration, and consent, with the clinical department in which the work is selected. The clinical work is designed to cover actual observation of patients and ward visits with instructors of the clinical department. For students, not less than 6 hours per week.

IX. PHYSIOLOGY

Ernest Gale Martin, Professor.

Frank Walter Weymouth, Associate Professor.

James Percy Baumberger, James Rollin Slonaker, Assistant Professors.

George Daniel Shafer, Instructor.

[See courses 3, 4, 5, 6, and 7 in the Department of Physiology.]

X. SURGERY

Stanley Stillman (Executive), Emmet Rixford, Professors.

Albert Brown McKee, Rufus Lee Rigdon, Edward Cecil Sewall, Clinical Professors.

Frank Ellsworth Blaisdell, John Francis Cowan, Leonard Wheeler Ely, Associate Professors.

Leo Eloesser, Philip Kingsnorth Gilman, Harrington Bidwell Graham, Harvard Young McNaught, Melville E. Rumwell, Associate Clinical Professors.

Edward B. Towne, Assistant Professor.

John Adolph Bacher, Hans Barkan, James Root Dillon, Harry Leslie Langnecker, Caroline B. Palmer, Assistant Clinical Professors.

John Robert Burrows, Edmund Butler, Arthur L. Fisher, Harold Augustus Fletcher, Ross Wallace Harbaugh, Lester O. Kimberlin, Roderick O'Connor, Otis Allen Sharpe, Chester Howard Woolsey, Clinical Instructors.

Rea Ernest Ashley, Hubert W. Dudley, Louis Charles Heare, William C. Hobdy, Josiah H. Kirk, Harold Staats Moore, Merton James Price, Lorruli Anna Rethwilm, Lloyd R. Reynolds, John P. Strickler, Frederick L. Wright, Assistants.

Sterling Bunnell (Surgery), George W. Hartman (Genito Urinary), Henry A. L. Ryfkogel (Surgery), Alfred J. Zobel (Proctology), Lecturers.

S. Nicholas Jacobs (Surgery), Assistant Lecturer.

[For statement in regard to required work, see Announcement of the School of Medicine.]

Courses for Second-Year Medical Students

1. Principles of Surgery.
4½ hours (50 hours), autumn or spring quarter (Gilman) M 11–12:30; WF 10:30–12
autumn, 15; spring, 28

2. Fractures and Dislocations.
2 hours (22 hours), autumn or spring quarter (Blaisdell) W 8:30–10:30
autumn, 15; spring 28

3. Surgical Anatomy.
2 hours (16 hours), autumn or spring quarter (Blaisdell) TTh 4–5
autumn, 15

4. Surgical Diseases of Extremities.
2 hours (22 hours), autumn or spring quarter (Rumwell) F 10:30–11:30
autumn, 15; spring, 28

For Third-Year Medical Students

5. Surgical Diseases of the Abdomen.
2 hours (22 hours), autumn or spring quarter (Stillman or Cowan) M 4–5; W 4:30–5:30
autumn, 14; spring, 15

6. Surgical Diseases of Head and Neck.
2 hours (22 hours), winter quarter (Rixford) TTh 4:30–5:30
autumn, 1; winter, 28

7. Surgical Diseases of Thorax.
1 hour (11 hours), spring quarter (Towne) T 4–5
spring, 29

8. Surgical Clinic, Lane Hospital.—(Two quarters required.)
1 hour (22 hours), any quarter (Towne) T 11:30–12:30
autumn, 14; winter, 28; spring, 15

8a. Set Clinic, Stanford Hospital.—(Two quarters required.)
1 hour (22 hours), any quarter (Stillman, Cowan, or Gilman) Th 11:30–12:30
autumn, 14; winter, 28; spring, 16

9. Out-patient Clinic.—(Two consecutive quarters required.)
2 hours (44 hours), any quarter (Stillman or Rumwell) TTh 9:30–10:30
autumn, 13; winter, 13; spring, 16

10. Surgical Ward, Lane Hospital.
(Two consecutive quarters required.)
1 hour (22 hours), any quarter (Cowan, Gilman) Th 8:30–9:30
autumn, 14; winter, 13; spring, 15

11. Surgical Laboratory: Tumors.
3 hours (33 hours), autumn or summer quarter (Cowan or Towne) M 1:30–3, T 3–4:30
autumn, 14

12. Surgical Laboratory: General Surgical Pathology.
(Two quarters required.) Prerequisite: course 11.
3 hours (66 hours), two quarters (Cowan, Ely, Towne) ThF 2:30–4
autumn, 8; winter, 28; spring, 20

13. Preliminary Ophthalmology.
1 hour (11 hours), autumn or spring quarter (McKee or Barkan) M 3–4
autumn, 10; spring, 19

For Fourth-Year Medical Students

14. Surgical Clinic, Lane Hospital.—(Two quarters required.)
1½ hours (17 hours), any quarter (Stillman, Cowan, or Gilman)
autumn, 14; winter, 12; spring, 9 S 8:30–10

14a. Set Clinc, Stanford Hospital.—(Two quarters required.)
1 hour (22 hours), any quarter (Stillman, Cowan, Gilman)
autumn, 14; winter, 12; spring, 11 Th 11:30–12:30

14b. Set Clinic in Surgical Specialties, Stanford Hospital.
1 hour (11 hours), any quarter (McKee, Sewall, Ely, Rigdon)
autumn, 14; winter, 11; spring, 7 Th 11:30–12:30

15. Surgical Clinic, San Francisco Hospital.
4 hours (44 hours), one or more quarters (autumn, winter, Rixford; spring, summer, Rixford or Eloesser) M 8:30–11:30, Th 9–10
autumn, 8; winter, 7; spring, 8

[Three quarters selected from courses 14 and 15 are required. Two quarters may be taken at the Lane Hospital and one at the San Francisco Hospital, or vice versa, as the student may elect. Total, 110 to 121 hours.]

16. Out-patient Clinics.—(Elective.)
1 hour (11 hours), any quarter (Stillman or Gilman) W 9:30–10:30
winter, 8; spring, 10

17. Wards of Lane Hospital.—(Elective.)
1 hour (11 hours), any quarter (Towne) M 8:30–9:30
winter, 5; spring, 8

18. Operative Surgery on the Cadaver.—(Elective.)
2 hours a week for 6 weeks (12 hours), winter or summer quarter (Towne)
winter, 9 By arrangement

19. Orthopedic Surgery.
3 hours (33 hours), autumn, winter, or spring quarter (Ely, Langnecker)
autumn, 8; winter, 8; spring, 2 TF 10–11:30

20a. Genito-Urinary Surgery.
(Three quarters required, one quarter each at Lane Hospital and San Francisco Hospital; the third quarter at either hospital.)
1½ hours (50 hours), autumn, winter, and spring quarters (Lane Hospital, Rigdon; San Francisco Hospital, Dillon and Hartman)
Th 8:30–10 (S. F. H.); F 8:30–10 (L. H.)
2 hours, summer quarter, clinics only, Lane Hospital (Dillon)
autumn, 21; winter (3 groups), 3, 7, 7; spring (3 groups), 9, 6, 5

20b. Genito-Urinary Surgery.—(Optional.)
1 hour (11 hours), winter or spring quarter, lectures only (Dillon) M 4–5
6 hours a week for 8 weeks, summer quarter, clinics only, Lane Hospital
winter, 12; spring, 16 (Dillon, Woolsey)

21. Ophthalmology.—(Three quarters required.)
2 hours (22 hours), autumn, winter, and spring quarters; 2 hours, summer quarter, clinics only (McKee, Barkan)
autumn, 22; winter, 19; spring, 18 Lec. T 1:30–2:15, Clinic TTh 2:15–3:30

22. Otology, Rhinology, and Laryngology.

(Three quarters required.)

1 hour (33 hours), autumn, winter, and spring quarters (SEWALL) Lec. Th 1:30–2:30

In addition, 33 hours of clinic work, autumn, winter, and spring quarters (MCNAUGHT, BACHER, KIRK) T or Th 2:30–3:30; 2 hours a week for 11 weeks, out-patient clinic, summer quarter.

3 hours (33 hours), clinic, S. F. Hospital, spring quarter (GRAHAM) By arrangement

winter, 19; spring, 19

23. Special Courses.

For advanced students and physicians. (*a*) Ear, Nose, and Throat; (*b*) Surgical Pathology; (*c*) Anesthetics.

PRE-NURSING CURRICULUM

The Pre-Nursing Curriculum is designed primarily for those who wish to prepare themselves for administrative, teaching, social service, or public health work. The curriculum consists of three years' work at Stanford University and two years at the Stanford School of Nursing, Lane Hospital, San Francisco, the degrees of Bachelor of Arts and Graduate Nurse being conferred at the close of the five years. The completion of 135 units of University work and acquirement of 135 grade points are necessary before the student may enter the School of Nursing.

FIRST SIX QUARTERS

English, Foreign Languages, History, Problems of Citizenship (Lower Division requirements).

Chemistry 1, 2, 10, *a, b;* 17 units; (or 3, 4, 10*b*: 12 units).

(Courses 1, 2, *a* for students who have no entrance credit in Chemistry.)

General Biology: 9 units (Zoology 1 may be substituted for General Biology).

Zoology 11 (Comparative Anatomy): 5 units.

SEVENTH, EIGHTH, AND NINTH QUARTERS

Anatomy (special course): 5 units.

Bacteriology A: 6 units.

Physiology 1, 2: 10 units.

Zoology 13: 5 units.

Graduates of schools of nursing affiliated with an institution of collegiate rank may be granted, on recommendation of the Pre-Nursing Committee, a maximum advanced credit of forty-five units, provided they have also fulfilled the requirements of graduation and recommendation from an accredited high school.

Graduates of accredited schools of nursing not affiliated with an institution of collegiate rank should have, in addition to the high school requirements, one year of successful administrative or educational experience.

For students entering with advanced standing a minimum of 45 units of resident work at Stanford University will be required. While this minimum of 45 units usually presupposes a residence of three University quarters, the completion of the collegiate part of the Pre-Nursing Course in this minimum of time is possible only for those students who have fulfilled the requirements of the first six quarters, (including the Lower Division requirements.)

Students intending to take this work should confer with Professor C. S. Stoltenberg, Stanford University, or with the Superintendent of Nurses, Lane Hospital, San Francisco. Prospective students are urged to take their probationary period as nurses early in the course, while they are still at the University.

SUMMER QUARTER COURSES, 1923

2. Training School Administration.
1 unit, summer quarter, 1st half (Landis) TTh 1:05
summer, 35

3. Organization of Nursing Subjects; Principles and Methods.
2½ units, summer quarter, 1st half (Wood, Walsh)
Lec. MWF 1:05; demonstrations (Palo Alto Hospital) TTh 2:30–4:30
summer, 35

MEMORIAL CHURCH

The Rev. David Charles Gardner, Chaplain.
Warren D. Allen, Organist.

Daily Chapel, with address, 7:50 a. m.
Sunday, Divine Worship and Sermon, 11 a. m. (Holy Communion as announced.)
Organ Recitals, Sunday, 4 p. m.; Tuesday and Thursday, 4:15 p. m.

MILITARY SCIENCE AND TACTICS

Leroy P. Collins, Major Field Artillery, Professor.
Charles E. Boyle, Captain Field Artillery, Harold A. Cooney, Captain Field Artillery, Assistant Professors.

A field artillery unit of the Reserve Officers' Training Corps is maintained for the purpose of fitting students to become reserve field artillery officers while they are taking their regular college courses, thus enabling them, if called into active service during a national emergency, to best perform the military duties for which their capabilities and training as college graduates fit them in the service of their country.

The course is planned to cover a period of four academic years.

Any student electing the course is expected to do so with the idea that he will complete the first two years' basic course, and if possible, that he will elect and complete the last two years' advanced course; and that, upon its satisfactory completion, he will accept from the President of the United States, a commission as second lieutenant of Field Artillery in the Officers' Reserve Corps. If the college course is completed in three years, the commission may be awarded at that time. The obligation to complete the basic course may be cancelled for good and sufficient reasons approved by the head of the department and the President of the University. The advanced course is open only to such students as satisfactorily complete the basic course, and they are required to attend one summer instruction camp of six weeks' duration, normally at the end of the first year of the advanced course. Credit is given for R. O. T. C. work taken at other institutions.

All students enrolled in the R. O. T. C. are furnished uniforms and equipment without cost to themselves. If they desire, they may attend the summer instruction camp without any cost on their part, as the government furnishes them with food, clothing, and mileage at the rate of five cents per mile to and from camp. The camp is a period of interesting and instructive work with the physical and moral development of the students well provided for, and, in addition, is valuable in its broadening effect on the student, who is associating with men from other leading American universities. Men taking the advanced course receive in addition to the above, commutation of subsistence at the rate of $12 per month for two years and pay while at the required camp. (Five units of credit will be given for satisfactory completion of the 1922 camp.) After being commissioned, those who so desire may serve with the regular army as second lieutenants for a period of six months. All others are placed in the inactive reserve.

The United States Government places at the disposal of the University for instruction purposes the necessary number of horses, horse equipment, personal equipment, a 3-inch battery, one gun of each of the other types used by field artillery, fire control and reconnaissance instruments, motor equipment including caterpillar tractors, trucks, and motorcycles.

Field Artillery Course

first year basic (freshman)

1a. Fundamentals of Military Science.

(3 hours per week.) Organization and administration of a battery; military hygiene; first aid and sanitation; customs of the service; military courtesy and discipline; morale; psychology of handling men and leadership; guard duty.

3 units, autumn quarter
autumn, 34

1d. Practical Instruction.

(3 hours per week.) Standing gun drill, gunners' instruction, school of the soldier, squad and battery dismounted.

1 unit, autumn quarter
autumn, 37

[NOTE.—This course, with the other practical courses of the basic course, viz., *1e*, *1f*, *2d*, *2e*, and *2f*, fulfills the college requirement of six quarters military or physical training.]

1b. Materiel.

(3 hours per week.) Guns: types, construction, mechanical principles, principles of design. Field artillery carriages: design, construction, tools, accessories, equipment, methods of carrying same; disassembling and assembling various parts of gun materiel: their care, operation, nomenclature, maintenance, lubrication, cleaning; sights, quadrants, fuze-setters, fire control instruments: principle of design, nomenclature, operation, adjustments, care; ammunition: powders, explosives, detonators, primers, projectiles, fuzes: their description, manufacture, construction, care, and use; signal equipment: telephones, projectors, radio, etc.; engineer equipment.

3 units, winter quarter
winter, 67

1e. Practical Instruction.

(3 hours per week.) Elementary equitation. Saddling and bridling, adjustments, acquiring a firm seat at all gaits.

1 unit, winter quarter
winter, 37

1c. Gunnery.

(3 hours per week.) Elements of field artillery gunnery; duties of the cannoneer; care and maintenance of harness and horse equipment; gunners' examination. Students qualifying as expert first-class gunners, first-class gunners, and second-class gunners, are entitled to wear the insignia for same for the remainder of the course.

3 units, spring quarter
spring, 48

1f. Practical Instruction.

(3 hours per week.) Driving and draft. Management of a pair in battery drills and maneuvers.

1 unit, spring quarter

SECOND YEAR BASIC (SOPHOMORE)

2a. Hippology.

(3 hours per week.) The field artillery horse: care, conditioning and training; care and management in the field; forage and animal nutrition; types of artillery horses; breeds and blood lines; shoeing, grooming, stable management and exercise; anatomy, physiology, points, conformation, and age of the horse; wounds, simple diseases and their treatment; veterinary medicines.

3 units, autumn quarter
autumn, 92

2d. Practical Instruction.

(3 hours per week.) Advanced equitation and horse training; use of the aids; training and conditioning of the officer's charger.

1 unit, autumn quarter
autumn, 82

2b. Field Artillery Motors and Motor Transportation.

(3 hours per week.) Gas engines, motor vehicles, artillery trucks and tractors, theory, mechanical design, construction, operation, nomenclature, care, maintenance, etc.

3 units, winter quarter
winter, 46

2e. Practical Instruction.

(3 hours per week.) *a.* Driving, care and use of motor vehicles. *b.* Cannoneer's instruction and fire discipline. *c.* Pistol, automatic rifle, and machine gun practice.

1 unit, winter quarter
winter, 68

2c. Field Artillery Topography.

(3 hours per week.) Military maps and mapping: theory, practice, reading, distances, direction, scales, elevation, contours and ground forms; road, position, panoramic and place sketches, road reports; battle maps and charts, grids and use of same in reading maps and firing; instruments, traverse, intersection, resection, orientation, determining exact location of directing piece, the orienting line, laying guns with a declinated instrument, laying guns on base line, visibility and defilade, minimum elevation and range, dead spaces.

3 units, spring quarter
spring, 37

2f. Practical Instruction.

(3 hours per week.) Battery drills and maneuvers mounted. The corporals are selected from this class.

1 unit, spring quarter

FIRST YEAR ADVANCED (JUNIOR)

3a. Field Artillery Tactics.

(3 hours per week.) Organization of the army; field artillery: organization, operations, employment, information, communications, artillery nets, ammunition supply; divisional, corps, and army artillery and use of each; functions of the various calibers of field artillery and principles involving the type used; field engineering, including types and construction of battery emplacements; camouflage and study of air photographs.

3 units, autumn quarter
autumn, 35

3d. Practical Instruction.

(3 hours per week.) Composition and use of battery, battalion and regimental special details; reconnaissance, selection and occupation of battery positions; training of scouts and agents; communications in open and in stabilized warfare, laying out the telephone net; battery emplacements; camouflage.

1 unit, autumn quarter
autumn, 26

3b. Field Artillery Gunnery.

(3 hours per week.) Ballistics, pressures and velocities, the trajectory and its elements, trajectory problems, accuracy of fire, dispersion, theory of probability and law of errors, probable error, application of the laws of dispersion, theoretical bases of principles of fire, range tables, corrections, shifts of fire, atmospheric effects, meteorological data, corrections of the moment, action and effect of projectiles and fuzes.

3 units, winter quarter
winter, 24

3e. Practical Instruction.

(3 hours per week.) Conduct of fire with blackboard, terrain boards, smoke bomb, and subcaliber practice.

1 unit, winter quarter
winter, 27

3c. Field Artillery Firing.

(3 hours per week.) Firing instruction (Part IX, F. A. D. R.), preparation of fire, determination of firing data, topographical determination of firing data, principles of fire, conduct of fire, observation of fire, effect of fire, principles governing conduct of fire in open warfare and stabilized warfare, and relative importance of each.

3 units, spring quarter
spring, 19

3f. Practical Instruction.

(3 hours per week.) Battery drills and maneuvers, mounted. The sergeants are selected from this class.

1 unit, spring quarter

SECOND YEAR ADVANCED (SENIOR)

4a. Military History and Policy of the United States.

(3 hours per week.) A critical study of our military policy, and a military survey of the most important campaigns and battles of the United States (including the World War). Military operations and strategy.

3 units, autumn quarter

4d. Practical Instruction.

(3 hours per week.) Acting as assistant instructors for first-year students in course 1*d*; gunners' examination for special details.

1 unit, autumn quarter
autumn, 7

4b. Military Law.

(3 hours per week.) History, authority, sources; procedure of courts-martial; rules of land warfare; military government; armistices, conventions, treaties; riot duty; civil government.

3 units, winter quarter

4e. Practical Instruction.

(3 hours per week.) Training as instructors in equitation.

1 unit, winter quarter
winter, 13

4c. Minor Tactics and Map Maneuvers.

(3 hours per week.) Organization and tactics of the various arms and their combined tactics; staff: organization, function and duties; minor tactics and map maneuvers based on the course given in the Army School of the Line; Field Service Regulations; field orders, supply, etc.

3 units, spring quarter
spring, 19

4f. Practical Instruction.

(3 hours per week.) Battery drills and maneuvers, mounted. The cadet officers are selected from this class.

1 unit, spring quarter
spring (2 sections), 51, 67

4p. Polo.

(3 hours per week.) Open to all students who have completed 1*e*, or 2*d*.
1 unit, autumn, winter, and spring quarters
autumn, 16; winter, 27; spring, 25

MINING AND METALLURGY

THEODORE JESSE HOOVER, JAMES MACDONALD HYDE, Professors.
WELTON JOSEPH CROOK, WALDEMAR FENN DIETRICH, FREDERICK GEORGE TICKELL, Associate Professors.
LOUIS DAVID MILLS, Lecturer.

The department of Mining and Metallurgy is a graduate school, offering professional training in mining and metallurgy, and leading, on the completion of a two years' graduate course, to the degree of Engineer. Candidates for registration in the department will present as qualification for admission the degree of A. B. from the University, or its equivalent.

Students are advised to register for the four years of the pre-Mining course in the Department of Geology, in which department the courses are arranged, in coördination with the Department of Mining and Metallurgy, to lead up to the professional school. Students may, however, carry out their pre-Mining work in the Department of Chemistry, Physics, Civil Engineering, or Mechanical Engineering, with the advice and consent of the faculties of those departments and the faculty of this department.

These pre-Mining courses are arranged to give prospective engineers a broad foundation of Science, Language, English, Economics, and History.

The following courses offered by the department are open to undergraduates: 1, 5, 6, 12, 17, 24, 25, 47. All other courses are open only to graduate students.

LECTURE COURSES

ECONOMICS OF MINING

1. History of Mining and Metals.

A general survey of the metal supply of peoples and its effect on their progress in the arts, science, and culture; relation of mining and metallurgy to other industries, and to civilization. Open to students of all departments.
1 unit, winter quarter (HOOVER) T 9

2. Mine Valuation.

General considerations; sampling and measurement; widths and volumes; economic geology; analysis of costs; prices of metals; smelter contracts; amortization and depreciation; reserves; reports. Prerequisites: courses 5, and 12 or 25.
1 unit, autumn quarter (HOOVER) Th 10
autumn, 15

3. Mine Organization.

The mining company; forms of business; frauds; selling mines; shares; balance sheet; profits; valuation; taxes; law. Prerequisite: course 2.

1 unit, winter quarter (HOOVER) Th 9
winter, 13

4. Mine Management.

Organization and discipline of staff; technical committees, consulting engineers, managing directors, general managers; business principles and scientific management; vocational and technical training; personal qualities and efficiency; organization and discipline of labor; reports; supplies and material; costs and accounts. Prerequisite: course 3.

1 unit, spring quarter (HOOVER) Th 9
spring, 8

MINING

5. Principles of Mining.

Covers the whole subject, gives a comprehensive view of the industry, and serves as an outline for the orderly development of professional studies; prospecting; development; equipment, operation. Prerequisite: For undergraduates who have had Geology 1.

4 units, autumn quarter (DIETRICH, HOOVER) MTWTh(F) 10
autumn, 31

6. Mine Rescue and First Aid.

In coöperation with the U. S. Bureau of Mines. Open to undergraduates.

1 unit, winter quarter (DIETRICH) By arrangement
spring, 10

7. Prospecting and Development.

The prospector; geological aspects; placer prospecting methods and costs; prospecting deposits in place, methods, and costs; engineering features. Boring methods are covered in detail. Development plans; methods and costs of shaft sinking, drifting and raising; engineering records. Prerequisite: Pre-Mining course.

3 units, autumn quarter (DIETRICH) MWF 8
autumn, 22

8. Surface Equipment.

Factors governing choice of surface equipment. Power, compressors, explosives, drills, roads, railroads, tramways, materials for structures, bins. Prerequisites: Mining 7; Electrical Engineering 2, 3; Engineering 12.

2 units, winter quarter (DIETRICH) TTh 11
winter, 8

9. Underground Equipment.

Factors governing choice of underground equipment. Power, hoisting, haulage, drainage and pumping, ventilation, illumination. Prerequisite: course 8.

2 units, spring quarter (DIETRICH) TTh 11
spring, 3

10. Surface Operations.

Factors governing choice of methods of mining: Placer, hydraulic, dredge, pit, quarry, costs. Prerequisite: course 7.

2 units, winter quarter (DIETRICH) TTh 8
winter, 12

11. Underground Operations.

Factors governing choice of method. Methods of timbering, filling, disposal of waste, stoping, costs, duty per man. Prerequisite: course 10.

3 units, spring quarter (DIETRICH) MWF 8
spring, 8

METALLURGY

12. Principles of Metallurgy.

Elementary discussion of broad principles of ore dressing and metallurgical operations. Preparatory to more detailed treatment in later courses; crushing, classification, concentration, hydrometallurgy, pyrometallurgy. Prerequisites: Chemistry 1, *a*, *d*; Mineralogy 1.

5 units, winter quarter (HYDE) MTWThF 10
winter, 35

13. Crushing, Sizing, and Classification of Ores.

Mechanical preparation of ores for concentration or hydrometallurgical treatment. Principles, practice, and cost of crushing, pulverizing, sizing, and hydraulic classification of ores, transportation of pulp throughout the plant and thickening of pulps. Prerequisite: Metallurgy 12.

2 units, autumn quarter (HYDE) TTh 9
autumn, 5

14. Concentration Processes.

The principles, practice, and cost of the concentration of metalliferous minerals from ores. Prerequisite: Metallurgy 13.

2 units, winter quarter (HYDE) MW 11
winter, 6

15. Hydrometallurgy, Gold and Silver.

The principles, practice, and cost of treating ores by amalgamation, cyanidation, chlorination, lixiviation methods. Prerequisite: Metallurgy 13.

3 units, autumn quarter (HYDE, MILLS) MWF 9

16. Hydrometallurgy, Copper, Lead, and Zinc.

The principles, practice, and cost of recovering copper, lead, and zinc from ores by hydrometallurgical processes. Prerequisite: Metallurgy 14.

3 units, spring quarter (HYDE) MWF 10

17. Pyrometallurgy, Iron and Steel.

The principles, practice, and cost of producing iron and steel. Prerequisites (except for Upper Division students in Civil Engineering): Chemistry 1, 3, *a*, and *b*.

3 units, autumn quarter (CROOK) MWF 8
autumn, 140

18. Pyrometallurgy, Copper, Lead, and Zinc.

The principles, practice, and cost of recovering copper, lead, and zinc from ores by pyrometallurgical methods; the physical chemistry of metallurgical operations. Prerequisite: course 12.

3 units, spring quarter (CROOK) MWF 11
winter, 3

20. Electrometallurgy.

The principles, practice, and cost of electric furnace work. Prerequisites: courses 16 and 18.

2 units, winter quarter (CROOK) MW 8, by arrangement

21. Metallography.

Study of the properties and microstructure of metals and alloys. Technique of metallographic investigation and microphotography. Prerequisites: courses 12 and 17.

1 unit, winter quarter (CROOK) By arrangement
autumn, 2

22. Pyrometry.

Determination of high temperatures and the calibration of pyrometrical instruments. Prerequisites: courses 12 and 17.

1 unit, winter quarter (CROOK) By arrangement
autumn, 2

23. Metallurgical Calculations.

Calculation of problems involving physical chemistry as applied to igneous and hydrometallurgy. Calculation of efficiency of processes and furnace operations. Blast furnace charge calculations, etc. Prerequisites: courses 16 and 18.

2 units, autumn quarter (CROOK) T 8
spring, 4

24. Assaying.

Principles and methods for determining gold and silver in ores and metallurgical products. Prerequisites: Open to undergraduates who have had Chemistry 1, 3, *a, f,* and Mineralogy 1. To accompany course 43.

1 unit, spring quarter (HYDE, CROOK) By arrangement
autumn, 6; spring, 5

PETROLEUM

25. Principles of Petroleum Mining.

(Same as Economic Geology 4.) Covers the whole subject of petroleum mining, gives the student a comprehensive view of the industry, and serves as an outline for the orderly development of professional studies. Properties, origin, accumulation, and occurrence of petroleum; valuation, development, production, storage, transportation, refining and utilization. Prerequisites: Open to undergraduates who have had Geology 1 and Paleontology 2, 3.

3 units, spring quarter (TICKELL) MWF 9
spring, 17

26. Petroleum Engineering.

A course in the application of engineering principles to the solution of underground problems. Construction of graphic logs and sections, correlation of strata, study of water problems. Prerequisite: Mining 25.

3 units, autumn quarter (TICKELL) MWF 11
autumn, 56

27. Oil Field Development.

Dealing with the equipment and methods used in drilling oil wells. Prerequisite: Mining 25.

2 units, autumn quarter (TICKELL) TTh 11

28. Production of Oil.

Lectures on problems connected with the production of oil, control of wells, pumping methods, operation, dehydration. Prerequisite: Mining 27.

2 units, spring quarter (TICKELL) TTh 10
spring, 10

29. Storage and Transportation of Petroleum.

Methods of storage and transportation. Methods of gauging and metering, design of tanks and pipe-lines, prevention of storage losses, fire hazards. Prerequisite: Mining 26.

2 units, winter quarter (TICKELL) MW 9

30. Petroleum Refining and Utilization.

Refined products and their use for fuels, light generation, and lubrication, the economics of petroleum. Prerequisite: Mining 28.

2 units, winter quarter (TICKELL) TTh 11

31. Oil Land Valuation.

Lectures on the methods used in valuing oil lands. Estimation of future production, operation costs, depreciation of material, salvage, value of future profits. Prerequisite: Mining 28.

1 unit, spring quarter (TICKELL) T 9

LABORATORY COURSES

ECONOMICS OF MINING

32. Valuation, Organization, Management.

Analysis of data and elaboration of schemes of operation.

1 unit, autumn, winter, and spring quarters (HOOVER) By arrangement
autumn, 1

MINING

33. Prospecting and Development.

In connection with Mining 7. Plans and cost estimates for the prospecting and development of mining properties.

2 units, autumn quarter (DIETRICH) By arrangement

34. Mining Equipment.

In connection with Mining 8 and 9. Problems on mining machinery. Drawing plans and specifications and preparing cost estimates for mine equipment.

2 units, winter and spring quarters (DIETRICH) By arrangement
winter, 5

35. Mine Operations.

In connection with Mining 10 and 11. Choice and planning of mining methods to suit given conditions. Considerable experience in the field is a desirable prerequisite.

2 units, winter and spring quarters (DIETRICH) By arrangement
winter, 7; spring, 1

36. Mining Research and Thesis.

Unsolved problems in mining practice.

4 units, autumn, winter, and spring quarters (HOOVER, DIETRICH)
autumn, 2; winter, 1
By arrangement

METALLURGY

37. Ore Dressing.

Mechanical testing by laboratory methods to determine best method of ore dressing. Designed to accompany Metallurgy 14. Prerequisites: courses 12 and 13.

2 to 5 units, winter quarter (HYDE) By arrangement
winter, 5

38. Hydrometallurgy.

Laboratory study of hydrometallurgical methods; to accompany courses 15 and 16.

2 to 5 units, autumn and spring quarters (Hyde) By arrangement

39. Metallurgical Machinery.

Design of an ore treatment plant. Prerequisite: course 38.

2 units, winter and spring quarters (Hyde) By arrangement

40. Pyrometallurgy.

Pyrometry; refractory materials, formation of slags, mattes, and metals. To accompany courses 17, 18.

2 units, autumn quarter (Hyde, Crook) By arrangement

41. Electrometallurgy.

Treatment of zinc and copper ores in electric furnace, and a study of products. To follow or accompany course 20.

2 units (Crook)

42. Metallography.

To accompany course 21. Laboratory study of microstructure and physical constituents of metals, steels and other alloys, practice in metallographic investigation and microphotography.

2 units, winter quarter (Crook) By arrangement
autumn, 2

43. Pyrometry.

To accompany course 22. Practice in the calibration and use of pyrometric instruments. Thermal investigation of metals and alloys.

2 units, winter quarter (Crook) By arrangement
autumn, 2

44. Metallurgical Analysis.

Rapid methods for quantitative determination of constituents of ores and metallurgical by-products. Prerequisite: Chemistry *f*, Mining and Metallurgy 12.

3 or 4 units, autumn quarter (Dietrich) MTWThF 1:05
autumn, 1; spring, 2

45. Metallurgical Analysis.

Rapid methods for quantitative determination of constituents of metals and alloys, metallurgical products and raw materials.

3 units, spring quarter (Crook) By arrangement
winter, 1

46. Metallurgical Research and Thesis.

Original study of some unsolved problems in metallurgical practice.

4 units, autumn, winter, and spring quarters (Hyde, Hoover, Crook) By arrangement

47. Assaying.

Determination of gold and silver in ores and metallurgical products. Prerequisites: Chemistry 1, 3, *a*, *f*; Mineralogy 1. To accompany course 23.

4 units, spring quarter (Hyde, Crook) MTWThF 1:05
autumn, 6

PETROLEUM

48. Oil Well Water Analysis.

Rapid methods for the volumetric analysis of oil well waters. Prerequisites: Chemistry *f* or *g*, Mining 26.

2 units, winter quarter (TICKELL) MT 1
winter, 3

49. Oil Testing.

Practice in testing crude oil and refined products.

2 units (TICKELL) By arrangement
winter, 2

50. Advanced Work in Petroleum Engineering.

Special work in courses 26 to 30.

2 to 5 units, autumn, winter, and spring quarters (TICKELL) By arrangement

51. Petroleum Research and Thesis.

Unsolved problem in petroleum engineering.

5 units, autumn, winter, and spring quarters (HOOVER, TICKELL)
autumn, 1 By arrangement

52. Seminar in Origin and Accumulation of Oil.

(Same as Economic Geology 5.)

4 units, winter quarter (TOLMAN) By arrangement

PRE-MINING SCHEDULE

(The following schedule has been designed for Pre-Mining students, and they will be expected to follow it except for very good reason to the contrary.)

FRESHMAN YEAR

Autumn Quarter

Chemistry 1	General Inorganic	MWF	8:00	3
Economics 1	Citizenship 1: Soc. Problems	MTWTh	10:00	4
E	Linear Drawing	W	1:05	1
Language	(Lower Div. requirements)			3
Physics 1*a*	Mechanics and Heat	MWF	9, dr. 1:05	4
				15

Winter Quarter

Chemistry 3	General Inorganic	MWF	8:00	3
Economics 2	Citiz'nship 2: Econ. Problems	MTWTh	10:00	4
Engineering 2	Lettering	S	9:00	1
Language	(Lower Div. requirements)			3
Physics 1*b*	Electricity and Light	MWF	9, dr. 1:05	4
				15

Spring Quarter

Chemistry *b*	General Inorganic	ThF 1:05, S	8:00	3
Political Science 1	Citizenship 3: Pol. Problems	MTWTh	10:00	4
Language	(Lower Div. requirements)			3
Physics 5	Light	TTh 9, MTW	1:05	5
				15

Sophomore Year

Autumn Quarter

Applied Mathematics 1*a*	Elementary Analysis	MTWThF	11:00	5
History 10	Europe 395–1300	MWF	9:00	3
English 2	Composition	MWF	10:00	3
Geology 1	Elementary Geology	MTWThF	8:00	5
				16

Winter Quarter

Applied Mathematics 1*b*	Elementary Analysis	MTWThF	11:00	5
Engineering 3	Descriptive Geometry	TTh 8, ThF	1:05	4
Geology-Paleontology 2	Historical Geology	MWF 10, lab.	dhr.	4
History 11	Europe 1300–1648	MWF	9:00	3
				16

Spring Quarter

Applied Mathematics 2*a*	Calculus	MTWThF	11:00	5
English 2	Composition	MWF	8:00	3
Geology-Paleontology 3	Historical Geology	MWF 10, lab.	dhr.	4
History 12	Europe since 1648	MWF	9:00	3
				15

Junior Year

Autumn Quarter

Applied Mathematics 2*b*	Calculus	MTWThF	10:00	5
Civil Engineering 20	Elementary Surveying	T 9:00, lab.	1:05	3
Mechanical Engineering 1	Forge	S 9:00, lab.	1:05	4
or M. E. 3	Foundry	S 9:00, lab.	1:05	
or *Chemistry 5	Principles of Chemistry	MTWF	11:00	
Mining and Metallurgy 17	Pyromet. of Iron and Steel	MWF	8:00	3
				15

Winter Quarter

Applied Mathematics 3*a*	Theoretical Mechanics	MTWThF	10:00	5
Chemistry 20 and *d*	Qualitative Analysis	MTWThF	1:05	6
Economics 3	Elementary Accounting	MWF 8 or	11:00	3
Mining and Metallurgy 1*	History of Mining	T	9:00	1
				15

Spring Quarter

Applied Mathematics 3*b*	Theoretical Mechanics	MTWThF	10:00	5
Civil Engineering 21	Accountancy of Investments	Th 9, MTW	1:05	4
Economics 10	Accountancy of Investments	MTWTh	11:00	3
or *Chemistry 6	Principles of Chemistry	MTWF	11:00	
Mechanical Engineering 11	Freehand Machine Drawing	dr.	1:05	4
or M. E. 12	Elementary Machine Drawing	dr.	1:05	
				16

Senior Year

Autumn Quarter

Engineering 10	Applied Mechanics	MWF 9, MT	1:05	5
Geology	Mineralogy 1	WF 11, WF	1:05	4
Mechanical Engineering 21	Valuation of Fuels and Oils	F 8, lab. dr.	1:05	3
or Civil Engineering 31	Engin'r'g Estimates and Rpts.	dhur.		
Mining and Metallurgy 5	Principles of Mining	MTWTh	10:30	4
				16

* Students who are preparing for Metallurgical Engineering should substitute Chemistry 5 and 6 for M. E. 1 or 3 and Economics 10, but should endeavor to take at least the lectures in M. E. 1 and 3.

Winter Quarter

{ Chemistry 22 and *g*	Quantitative Analysis	MWThF 1:05	4–5
{ *or* †Geology	Mineralogy 2	WF 11, WF 1:05	
Electrical Engineering 2, 22	Electricity in Engineering	TTh 9:00, T 1:05	4
Geology-Econ. Geology 1	Non-Metals	MTWTh 8:00	4
Mining and Metallurgy 12	Principles of Metallurgy	MTWThF 10:00	5
			17–18

Spring Quarter

Electrical Engineering 3, 23	Electricity in Engineering	TTh 9:00, T 1:05	4
Geology-Econ. Geology 2	Ores	MTWTh 8:00	4
Mining and Metallurgy 25	Principles of Petrol'm Min'g	MWF 9:00	3
{ Mining and Metallurgy 24, 47	Assaying	MWThF 1:05, S 8	5
{ *or* †Geology-Mineralogy 3	Petrography	WF 11, WThF 1:05	
			16

Summer Quarter

Geology 4	Field Geology	8
Geology 5	Topographic Geology	7
		15

Total—Maximum	203
—Minimum	202

MUSIC

WARREN D. ALLEN, Organist and Director of the University Choir.

Choir 1.

The choir sings at the morning service each Sunday in Memorial Church, the music consisting of anthem, chant, and hymns. Continuous course until end of the year.

1 unit per quarter — Rehearsal Th 7:35
autumn, 64; winter, 65; spring, 60; summer, 17

Choir 2.

A separate choir, formed for the performance of oratorio and other major choral works.

1 unit per quarter — Rehearsals as arranged
autumn, 60; winter, 62

3. Orchestra.

1 unit per quarter (ALLEN) — Rehearsals W 7:30
autumn, 19

4. Military Band.

1 unit per quarter (MARTIN)
autumn, 47; winter, 46; spring, 25

† Students who are preparing for Petroleum Engineering should substitute Mineralogy 2 and 3 for Chemistry 22 and *g*, and Mining and Metallurgy 24 and 47.

PHILOSOPHY

Henry Waldgrave Stuart, Professor.
Harold Chapman Brown, Associate Professor.

Besides providing an adequate preparation for advanced studies in Philosophy, the requirements for an undergraduate course in this department leave opportunity for all the usual elements of a general or liberal education. Major students are required to present for the Bachelor's degree 35 units in Philosophy (in which courses 1, 2, 10, 16, and 20 must be included), and also to include, preferably during the first two years in the University, course 1 in Psychology, the general courses in medieval and modern European history (15 units), and the second-year courses (15 units) in French or German. Each major student will be expected to devote sufficient time to at least one minor subject to gain a substantial knowledge of some one of its divisions or aspects.

Elementary Courses

1. Logic.

The principles of Deductive and Inductive Logic, with special attention to the important types of fallacy. Open to all students.

5 units, autumn quarter (Stuart) MTWThF 9
autumn, 74

2. Ethics.

A short survey of the morality of primitive peoples as compared with more developed forms of morality. The working principles of good conduct. The important historic theories as to the criterion for good conduct. Prerequisite: second-year standing.

5 units, autumn quarter (Stuart) MTWThF 10
5 units, summer quarter (Brown) MTWThF 10
autumn, 41; summer, 23

4. Modern Scientific Conceptions of Nature and Mind.

A study of current views of cosmic structure and the place of man and his activities in nature, in the light of recent developments in physical chemistry, evolutionary biology, and psychology. Prerequisite: second-year standing.

4 units, autumn quarter (Brown) MTThF 11
autumn, 35

5. Esthetics.

The origins and nature of art. Its significance for religion, morality, and social life. The rise of art forms. Contemporary theories of esthetics. Prerequisite: second-year standing.

5 units (Brown) [Not given in 1921–22]

Intermediate Courses

10. History of Philosophy.

The development of philosophical theories from the early Greek period to the end

of the eighteenth century, with a brief outline of philosophical movements in the nineteenth century. Attention will be given throughout to the relations of philosophy with social and political conditions and with science, literature, and religion. Prerequisite: third-year standing and one elementary course. Either quarter may be taken without the other.

4 units, autumn and winter quarters (BROWN) MTThF 10
autumn, 43; winter, 64

11. Ethical Principles and Practical Life.

A comparative study of selections from Plato, Aristotle, the Stoics, the New Testament Gospels, Matthew Arnold, and Nietzsche. The contemporary historical conditions of various sorts which had influence in forming each type of ethical teaching and the practical tendencies of each type when applied in actual behavior. Prerequisite: course 2 or an approved equivalent.

5 units, winter quarter (STUART) MTWThF 8
winter, 25

12. Inductive Logic.

Methods of investigation in use in the natural and social sciences, and the cardinal assumptions and principles on which these methods are based. The course closes with a brief introduction to the field of general philosophy. Prerequisite: course 1 or an approved equivalent.

4 units (STUART) [Not given in 1921–22]

13. Introduction to Philosophy.

The aims and uses of philosophical study and the relation of philosophy to other subjects. How the problems of general philosophy (theory of knowledge and metaphysics) arise in the ordinary course of our experience. A review of the more important answers which have been proposed for these problems. Prerequisite: one elementary course.

4 units, winter quarter (STUART) TWThF 9
winter, 18

14. The Social Order and the Individual.

Insect and animal "societies" and the types of human social organization. Social authority and individual initiative. The ethical basis of political obligation. The nature of democracy, aristocracy, and absolutism.

4 units (STUART) [Not given in 1921–22]

15. Religion.

The psychological and social origins of religion. The relations of religion to science, to morality, and to philosophy. The distinctive content and characteristics of the great religions. Prerequisite: course 2, 4, or 10, or an approved equivalent.

4 units, spring quarter (STUART) TWThF 10
spring, 31

16. Philosophy of the Nineteenth Century.

The development of philosophical problems in France, Great Britain, Germany, and America will be studied in successive years in relation to the particular national genius and the conditions under which they arose. Prerequisite: course 10, or special permission of the instructor for suitably qualified third- or fourth-year students. The subject for 1922 was American philosophy.

4 units, summer quarter (BROWN) MTThF 9
summer, 29

Advanced and Graduate Courses

(Special work will be assigned for graduate credit in connection with certain of the Intermediate Courses listed above.)

20. The Problems of Contemporary Philosophy.

A constructive discussion of problems as presented in recent philosophical literature. Pluralism and monism; empiricism, absolutism and pragmatism; realism and idealism. Prerequisite: courses 10 and 16 or an approved equivalent.

4 units, spring quarter (Stuart) TWThF 9
spring, 12

25. Seminary.

Special topics: (spring quarter) "The Critique of Pure Reason."
autumn and spring quarters (Stuart) W 3–5
winter and summer quarters (Brown)
autumn, 4; winter, 18; spring, 6; summer, 2

PHYSICAL EDUCATION

MEN

Alfred David Browne, Associate Professor and Medical Adviser.

Encina Gymnasium

Walter D. Powell, Acting Director of the Department and Director of Major Intercollegiate Athletics.

Henry Wilfred Maloney, Director of Minor Sports and Associate Director of the Department.

Ernst Brandsten, Director of Aquatics and Assistant Director of the Department.

Charles Selwyn Botsford, Director of Intramural Athletics.

Wellford Duffy Seay, Associate Director of Major Intercollegiate Athletics.

Robert Lyman Templeton, Assistant Director of Major Intercollegiate Athletics.

Conrad Eugene Van Gent, Instructor in Physical Education, Football and Basketball Coach.

Frederick Rand Rogers, Instructor in Physical Education (Summer Quarter).

The organization of the Department and its courses have been planned primarily to give the student such supervision, instruction, and experience as will enable him to secure and conserve his own health while in the University, and to provide him with every means possible for recreation. This involves two main lines of activity.

Hygiene

Individual Instruction in Hygiene.
Physical examinations are made of each student in order to give the best advice as to the exercises or sports to be undertaken and to find defects, the proper treatment of which may add to the health and efficiency of the student.

Physical Training

Attendance at three one-hour periods each week is required of all freshmen and sophomores. Students satisfying the requirements of the department will be credited with six units for graduation. Seniors and juniors who have no physical training deficiency may qualify for unit credits by registering for work in the department.

Baseball.
winter, 44; spring, 22

Basketball.
autumn, 159; winter, 56; summer, 3

Boxing.
autumn, 109; winter, 79; spring, 38

Corrective Exercises.
autumn, 28; winter, 17; spring 11

Fencing.
autumn, 6; winter, 13; spring, 11

Gymnastics.
autumn, 87; winter, 97; spring, 84

Handball.
autumn, 100; winter, 110; spring, 112; summer, 23

Lacrosse.
autumn, 4; winter, 9

Rugby.
autumn, 30

Soccer.
autumn, 66; winter, 38; spring, 20

Swimming.
autumn, 268; winter, 227; spring, 351; summer, 149

Tennis
autumn, 124; winter, 127; spring, 192; summer, 37

Track.
autumn, 165; winter, 265; spring, 119

Tumbling.
winter, 5

Volley Ball.
autumn, 8; winter, 16; spring, 7

Wrestling.
autumn, 25; winter, 27; spring, 22

TEACHERS' COURSES

1. Nature, Function, and Administration of Play.
2 units, spring quarter (BOTSFORD)
spring, 35

2. Organization and Leadership of Physical Education in High Schools.
2½ units, summer quarter (ROGERS)
summer, 8

3. Theory of Teaching and Leadership.
2 units, winter quarter (BROWNE)
winter, 33

4. Kinesiology.
2 units, winter quarter; 2½ units, summer quarter (BROWNE)
winter, 32; summer, 22

5. Physical Examination and Growth Divergence.
summer, 19

6. Theory, Principles, and History of Physical Education.
1½ units, summer quarter (ROGERS)
summer, 17

7. Health Conservation and Methods of Health Teaching.
1½ units, summer quarter (BROWNE)
summer, 30

8. The Adaptation of Physical Activities.
1½ units, summer quarter (BROWNE)
summer, 22

9. Conditioning of Athletes.
2 units, winter quarter, 1½ units, summer quarter (MALONEY)
winter, 35; summer, 22

10. Developmental Athletics for Secondary Schools.
2 units, spring quarter; 1 unit, summer quarter (MALONEY)
spring, 27; summer, 20

11. Methods in Apparatus Gymnastics.
1½ units, summer quarter (BOTSFORD)
summer, 19

12. Methods of Teaching Soccer.
1 unit, winter and *summer quarters (MALONEY)
winter, 2; summer, 17

13. Methods of Teaching Handball, Volleyball, and Tennis.
1 unit, summer quarter (Botsford)
summer, 10

14. Methods of Teaching Boxing.
1 unit, summer quarter (Maloney)
summer, 14

15. Methods of Teaching Track and Field Events.
2 units, winter and *summer quarters (Templeton, Maloney)
winter, 11; summer, 24

16. Methods of Teaching Baseball.
1 unit, spring and *summer quarters (Seay)
spring, 8; summer, 9

17. Methods of Teaching Football.
2 units, spring and *summer quarters (Powell)
spring, 1; summer, 31

18. Methods of Teaching Basketball.
1 unit, winter and summer quarters (Van Gent, Powell)
winter, 8; summer, 27

20. Methods of Teaching Swimming and Water Sports.
1 unit, summer quarter (Maloney)
summer, 1

21. Public or Community Recreation.
1 unit, summer quarter (Botsford)
summer, 10

22. Practice in Teaching.
2 units, summer quarter (Botsford, Rogers)
summer, 4

PHYSICAL EDUCATION AND PERSONAL HYGIENE

WOMEN

Helen Masters Bunting, Assistant Professor and Director of Physical Education for Women.
Clelia Duel Mosher, Assistant Professor and Medical Adviser.
Greta Johannsen Brandsten, Lois Marjorie Kendall, Instructors.
Georgina Meyer Burk, Secretary and Assistant in Instruction.
Edith Pasmore, Assistant in Instruction.

Additional Summer Quarter Staff

Elsie Reed Mitchell, M. D. (Practicing Physician, Berkeley).
Gertrude Bradley Manchester (Instructor, Central School of Hygiene and Physical Education, New York City).

CATHARINE WINSLOW (Instructor in Physical Education, University of Oregon).

ALICE BURDETT (Formerly of the Public Schools, Brookline, Massachusetts).

MELVIN LLOYD DARSIE (University of California, Southern Branch, Los Angeles).

GEORGE DANIEL SHAFER, Department of Physiology, Stanford University.

MARION HARTWELL WALLACE (Formerly University of California, Southern Branch, Los Angeles).

CHRISTINE FABB (Instructor Physical Education, Mills College).

DORIS STEVENSON, Assistant in Instruction of Swimming, Stanford University.

The aim of Roble Gymnasium, as a laboratory of personal hygiene, is to improve the standard of health of the women and to increase their mental and physical efficiency; to encourage the habit of exercise; to foster a spirit of democracy and sportsmanship; and to stimulate a widespread interest in physical activity of all kinds.

Physical education is required of all undergraduate women during their first six quarters in the University. In general the arrangement will be as follows: two quarters gymnastics, one quarter dancing, one quarter swimming, one quarter athletics, last quarter choice of any course offered. A physical examination is made of each student in order to give advice as to work to be undertaken and to aid the student in correcting physical defects.

One unit of university credit per quarter will be given for three hours per week of satisfactory work in a regular class, whether elective or required.

1. Physical Education.

Gymnastics.

a. Elementary Swedish Gymnastics (3 hours). Required of freshmen.

1 unit per quarter
winter, 73

b. Advanced Swedish Gymnastics (3 hours). Required of sophomores, elective for juniors and seniors.

1 unit per quarter
winter 62

c. Corrective and Restricted Swedish Gymnastics (3 hours). Required of freshmen and sophomores whose posture requires special correction or who have other remedial handicaps, elective for juniors and seniors. Open only on consultation.

1 unit per quarter
autumn, 46; winter, 43; spring, 26

Athletics. Archery, Baseball, Basketball, Hockey, Tennis, Volley Ball. One quarter required in freshman or sophomore year; elective for juniors and seniors.

1 unit per quarter
(archery) *autumn, 25; winter, 19; spring, 29*; (baseball) *spring,* omitted 1921–22; (basketball) *winter, 76*; (hockey) *autumn, 105*; (tennis) *autumn, 50*; *spring, 72; winter, 25*

Dancing. (*a*) Folk. (*b*) Aesthetic. (*c*) Interpretative and Natural. One quarter required in freshman or sophomore year; elective for juniors and seniors.

1 unit per quarter
autumn, 26; spring, 24

Equitation. Open only to seniors.

1 unit per quarter
winter, 30; spring, 30

Swimming.

(*a*) Elementary.

(*b*) Intermediate. Requirement, 75 ft. side underarm stroke.

(*c*) Advanced. Requirement, 75 ft. crawl or trudgeon stroke.

(*d*) Diving. Requirement, straight dive from three-foot board.

One quarter required in freshman or sophomore year; elective for juniors and seniors.

1 unit per quarter
(swimming) *autumn, 90; winter, 28; spring, 122; summer, 110*; (diving) *autumn, 15; spring, 28; summer, 19*

2. Personal Hygiene.

Three lectures and demonstrations per week. Open to all women students.

3 units, autumn and winter quarters (MOSHER) MWF 11
autumn, 14; winter, 11

PROFESSIONAL COURSES FOR TEACHERS

(Summer Quarter only)

The purpose of these courses is to enable the University to meet the demands of California and other states in the matter of preparation, training, and certification of teachers of physical education.

1. Organization and Adaptation of Activities in High Schools.

Principles in organizing and adapting activities to local High School conditions, facilities, and time available; and to individual needs and capacities.

2½ units, summer quarter (BURDETT) MTWThF 1:05
summer, 5

2. Organization and Adaptation of Activities in Elementary Schools.

Principles in the organization and adaptation of analyzed activities to the needs, capacities, and incentives of children by age periods, with sex differentiations, and with reference to local elementary school conditions, facilities, and time available; organizing a program for each grade.

2½ units, summer quarter (BURDETT) MTWThF 2:05
summer, 3

3. Playground Administration.

Theory and Methods. A study of the nature and function of play; theories of play, age periods of play, the social and economic values of playgrounds, etc. Organization, construction, equipment, and supervision of playgrounds. Methods of instruction. (Course 4 must be taken in conjunction with this course.)

2½ units, summer quarter (BUNTING, WALLACE) MTWThF 8
summer, 4

4. Playground and School Room Activities.

Practice in Decathlon, games of simple organization, relay races, dramatic activi ties, singing, games and folk dances. Supervised teaching. (Course 3 must be taken in conjunction with this course.)

2½ units, summer quarter (WALLACE) MTWThF 9
summer, 4

5. Principles of Physical Education.

The special functions or aims of physical education from the standpoint of physical, mental, moral, and social training.

1½ units, summer quarter (MANCHESTER) MWF 1:05
summer, 6

6. History of Physical Education.

A study of the organized physical activities of various nations from ancient to modern times, with reference to their educational and health values.

1 unit, summer quarter (MANCHESTER) TTh 1:05
summer, 1

7. Growth and Development of the Child.

A study of the physical basis of education, including such topics as growth, physical defects, common disorders, preventive hygiene, fatigue and corrective work. Lectures and class discussions, following a text.

2½ units, summer quarter (DARSIE) MTWThF 8

9. Hygiene Teaching.

Subject matter for and methods of teaching hygiene in the schools.

2½ units, summer quarter (BURDETT) MTWThF 11

10. Physical Inspection, Health Supervision, and Child Pathology.

Study of defects, handicaps, and common ailments of children. Methods and practice in physical inspection and tests and management of examinations.

2½ units, summer quarter (MITCHELL) MTWThF 10
summer, 5

11. Anatomy.

A study of the anatomy of the viscera with especial reference to the circulatory and respiratory systems. Lectures and laboratory demonstrations. (No dissections will be attempted in this course.)

2½ units, summer quarter (MITCHELL) MTWThF 8
summer, 5

12. Physiological Effects of Muscular Activity.

Study of the physiology of circulation, respiration, digestion, and excretion with especial reference to the manner in which these functions affect and are affected by muscular activity. (This course supplements the previous course given on the

physiology of muscular and nervous systems, but the previous course is not a prerequisite.)

2½ units, summer quarter (SHAFER) MTWThF 9

13. Kinesiology.

A study of human joints and large muscle groups with reference to action and to the specific training received in special activities.

2½ units, summer quarter (BUNTING) MTWThF 2:05
summer, 2

14. Formal Activities.

Study of formal activities through all grades, from story plays to formal Swedish gymnastics, including apparatus gymnastics. Methods, technique, practice, supervised teaching.

5 units, summer quarter (MANCHESTER) MTWThF 10–12
summer, 2

15. Aesthetic and Folk Dancing.

Methods and technique of teaching aesthetic and folk dances especially adapted to high schools. Practice and supervised teaching.

2 units, summer quarter (WALLACE) MTWThF 3:05
summer, 7

16. General Course in Athletics.

Study of rules and methods of coaching. Basketball, Hockey, and Volleyball. Practice and supervised coaching.

2 units, summer quarter (WINSLOW, FABB) MTWThF 4:05
summer, 7

17. Swimming.

Methods and technique of teaching special strokes in swimming. Practice, and supervised teaching.

2 units, summer quarter (WINSLOW) MTWThF 2:05

[NOTE: All swimming classes as listed for the regular University students are also open to students taking these professional courses.]

FACILITIES

The equipment for women consists of a gymnasium and outdoor swimming pool, with dressing rooms and showers and electric hair driers. The pool is supplied with water from the regular University reservoir, and the water is in continuous circulation through the sterilizing plant day and night. The women's athletic fields contain four basketball courts, two hockey fields, two baseball diamonds, one volleyball court, and six tennis courts.

REGULATIONS AND REQUIREMENTS

Costume.—The gymnasium suit is especially designed for Stanford students and must be purchased at Roble Gymnasium. Regulation gymnasium shoes are required for gymnastic and outdoor classes. Ballet slippers are required for dancing classes. Swimming suits are provided by the University. Each student provides her own caps and

towel tickets. The complete outfit costs approximately twenty-four dollars.

Tennis.—The student is required to furnish her own racquet and balls.

Removal of Property.—All suits, shoes, racquets, or personal property, not claimed within three days after the close of classes in this department each quarter will be collected and disposed of.

Fees.—A fee of $1.00 per day will be imposed for needless late registration in required classes. A special fee of $5.00 is required of graduate students taking work in physical education. A fee of $2.00 will be charged for archery, and $3.00 for equitation.

Physical Examinations.—All newly registering students are required to have a brief physical examination. Appointments for the same must be made at time of registration All examinations for women are conducted by the Medical Adviser and department staff at Roble Gymnasium.

PHYSICS

DAVID LOCKE WEBSTER, Professor.
FREDERICK JOHN ROGERS, Associate Professor.
JOSEPH GRANT BROWN, ELMER REGINALD DREW, PERLEY ASON ROSS, Assistant Professors.
GEORGE RUSSELL HARRISON, Instructor.
MILDRED LUCILLE FRAZIER, Assistant.

1–2. General Physics.

These courses are designed for students in different major departments, and so differ somewhat in their subject matter and even more in the mathematical preparation required and method of presentation.

Course 1 is designed primarily for students of chemistry and geology, and premedical and non-technical students, but is also recommended for prospective physics majors as a general course preparatory to the more specialized courses to be taken later. It requires no mathematics beyond elementary algebra and geometry, and consists chiefly of problems on the application of physical principles to common phenomena observed outside the laboratory, and laboratory experiments related to them. For lack of time and mathematical preparation, rather little work can be done in course 1 on methods of precise measurement, but especial emphasis is placed, in this as in other courses, on the necessity of exact logical methods. Course 1 runs through the autumn and winter quarters, as 1*a* and 1*b*, and is followed by course 3, Modern Physics, in the spring quarter.

Course 2 differs from course 1 in being intended primarily for students of engineering. It requires entrance credit in Physics, and the student should have taken or be taking Theoretical Mechanics (Applied Mathematics 3) and Calculus. The subject matter of course 2 is the exact application of physical principles to

practical problems, with especial reference to the problems of most importance to the engineer. A student can begin course 2 in either the autumn or winter quarter. Course 2 does not cover the field of modern physics treated in course 3. Course 3 is therefore open to students who have taken course 2*c*, as well as to those who have taken course 1*b*.

The details of each course are as follows:

1a. Mechanics and Heat.

The lecture hours in this course are used chiefly for problem work on the application of mechanical principles to practical cases, and most of the experimental illustrations of these principles are found in the laboratory. The problems treated are on structures and machines of various kinds, and on the effects of inertia in moving bodies, including sound sources and sound receivers. Heat is treated only briefly, but with special reference to the explanation of heat phenomena by the motions of molecules. The essential purpose of the course is not only to give information on these particular problems, but also to introduce the student to the methods of exact reasoning needed in advanced scienctific work of any kind.

Three lectures, either with one laboratory period per week, counting 4 units altogether, or with two laboratory periods, counting 5 units altogether.

4 or 5 units, autumn quarter (Drew)
Lec. MWF 8 or 9; Lab. MTWThF 1:05–4:05, TTh 8–12, any three hours
autumn, 81

1b. Light and Electricity.

The lecture hours in this course include more experimental illustrations than in 1*a*, but here also the problem work is an important feature.

The work on light is confined to the first third of the course. It is chiefly on lenses and their use in combination with the eye, as spectacles, microscopes, or telescopes, but it also includes the more important experiments on the nature of light waves.

The other two-thirds of the course deal with electrical problems, specializing on direct currents, and including the fundamental principles of electrostatics and the theory of electrons, and the principles underlying the direct current motor and generator. Alternating currents are discussed briefly, with special reference to the chief points of difference between direct and alternating currents.

4 or 5 units, winter quarter (Webster, Drew)
Lec. MWF 8 or 9; Lab. MTWThF 1:05–4:05, TTh 8–12, any three hours
winter, 73; spring, 1

2a. Mechanics.

The purpose of this course is to discuss the fundamental conceptions of the mechanical laws which are used throughout physics. In discussing force, power, and energy in relation to the velocity and acceleration of bodies, various systems of absolute units are introduced. A small part of the time is devoted to simple harmonic motions, their composition, and application to standing waves. The course is concluded by a discussion of the properties of matter as manifested in friction, elasticity, viscosity, and surface tension. Prerequisites: Students should be taking or have taken Theoretical Mechanics (Applied Mathematics 3) and Calculus.

4 or 5 units, autumn, *winter, and *summer quarters
(autumn) (Harrison) Lec. MWF 11; Lab. one or two periods, WThF 1:05–4:05; (winter) (Ross) Lec. MWF 11; Lab. one or two periods, MTWThF 1:05–4:05; (summer) (Webster) same schedule as in autumn
winter, 68; summer, 17

2b. Heat and Light.

The first part of the course will be given to heat, treating the subject of expansion of solids, liquids, and gases, change of state, transfer of heat, radiation, absorption, and the conversion of heat into other forms of energy. The latter part of the quarter will be given to a treatment of reflection, refraction, and dispersion of light, with the application of lenses and mirrors to optical instruments. Interference and polarization of light will be touched on briefly. Prerequisite: course *2a*.

4 or 5 units, winter and *spring quarters
(winter) (BROWN) Lec. TTh 11; Lab. two or three periods, WThF 1:05–4:05; (spring) (HARRISON) Lec. MWF 11; Lab. one or two periods, MTW 1:05–4:05
winter, 27; spring, 89

2c. Electricity.

The principles which govern the behavior of direct currents in ordinary circuits, and the action of battery cells, dynamos, and motors are developed in the lectures, and applied in problems and laboratory exercises. Some related topics in electrostatics and magnetism are considered, and a ilttle time is given to alternating currents. Two lectures and two or three laboratory periods per week. Prerequisite: course *2a*.

4 or 5 units, autumn and *spring quarters
(autumn) (ROGERS) Lec. MWF 11; Lab. one or two periods, MTThF 1:05–4:05; (spring) (DREW) Lec. TTh 11; Lab. two or three periods, WThF 1:05–4:05
autumn, 71; spring, 14

2d. Electricity and Electrical Measurements.

Precise measurements of current, E. M. F., resistance, capacitance, inductance, and the magnetic properties of iron. Lectures on the above topics and also on topics omitted in the preceding course, such as: Alternating currents; induction coils and transformers; electric oscillations and electric waves; electric discharges; cathode rays, and X-rays. The regular prerequisite is course *2c*, but an acceptable alternative is course *1b* and two units of course *2c*.

4 or 5 units, winter quarter (ROGERS)
Lec. TTh 11; Lab. (two or three periods) MTThF 1:05–4:05
autumn, 1; winter, 65

3. Modern Physics.

This course deals with the discoveries of the last few decades on the nature of matter and energy. This subject is not one to demand problem work, so the work will consist of lectures and outside reading, with experimental illustrations when they are practicable.

The course includes discussions of the following topics: Evidence for the reality of atoms, their sizes and their arrangements in the structure of crystals; vacuum tube phenomena and their applications; electrons and nuclei as the constituents of atoms, with current theories on atomic structures; radioactivity and nuclear disintegration, and its probable influence on the history of the universe; the electrical nature of light waves; the reactions between electrons, light waves, and atomic collisions, leading to the theory of quanta; the nature of space and time.

3 units, spring quarter (WEBSTER) Lec MWF 9
spring, 64

3a. Mechanics.

4 or 5 units
autumn, 65

4. Wave-motion and Sound.

About one-half of the time will be given to wave-motion, using wave machines, wave models, ripple troughs and lantern slides for illustration. The work on sound will deal with the production and propagation of sound, resonance, interference, musical instruments and scales, hearing and the production and properties of high frequency sound. Two lectures and two or three laboratory periods per week. Prerequisite: course 1*a* or 2*a*.

4 or 5 units, autumn quarter (BROWN) Lec. TTh 9; Lab. (two or three periods)

5. Light.

A study of the subjects of refraction, dispersion, interference and polarization treated as ether wave phenomena. The course assumes a knowledge of mechanics and geometrical optics, and is designed primarily for Physics and Geology majors. Two lectures and two or three laboratory periods per week. Prerequisite: course 1*b* or 2*b*.

4 or 5 units, spring quarter (BROWN)
Lec. TTh 10; Lab. (two or three periods per week) MTWThF 1:05–4:05
autumn, 49; spring, 31; summer 1

6. Optical Instruments.

Elementary geometrical optics of the prism, the thick lens and combinations of lenses, as used in optical instruments. Theory of the diffraction grating and interferometer, resolving power of instruments. Prerequisite: course 5. Three lectures and one laboratory period per week.

4 units, winter quarter (DREW) Hours by arrangement
winter, 3

7. Physical Optics.

Lectures on emission and absorption spectra, magneto-optics, optical activity, fluorescence, and theories of atomic and molecular structure. Laboratory work with spectrometer, interferometer and polarimeter. Prerequisite: course 5.

4 units, spring quarter (Ross) Lec. TTh 11; Lab. ThF 1:05–4:05

8. Theoretical Mechanics.

A course on the fundamentals of mechanics for students of physics and mathematics. Textbook, Jeans "Theoretical Mechanics." Prerequisite: course 2.

3 units, winter and spring quarters (Ross) Lec. MWF 9
winter, 4; spring, 3

9. Mechanical Measurements.

A course in exact measurement of mass, length, time, gravity, elasticity, surface tension, viscosity, etc. Three laboratory periods per week. Prerequisite: course 2*a*.

3 units, autumn quarter (BROWN)
winter, 7

10. Oscillations and Waves.

The mathematical theory of mechanical and electrical oscillations of one and two degrees of freedom. Forced oscillations, damping, and resonance. Wave propagation, stationary waves, Fourier's theorem, and the analysis and synthesis of complex periodic motions. Prerequisite: course 8 or its equivalent.

5 units, autumn quarter (HARRISON) Hours by arrangement

11. Kinetic Theory.

The properties of gases deduced from the mechanics of molecules, equipartition of energy and specific heats, electron theory of conductivity, Brownian movement,

surface energy, critical point and change of state, cohesion and cohesion phenomena. Prerequisite: course 8 (Theoretical Mechanics).

5 units, spring quarter (Ross) By arrangement

12. Thermodynamics.

Extended discussion of the second law of thermodynamics and its application to physical and chemical transformations. Prerequisite: course 2.

3 units, autumn quarter (Drew)

13. Principles of Radiotelegraphy.

Lectures on modern developments in wireless communication, with selected experiments on the design, manipulation, and control of transmitting and receiving apparatus. Open to students having credit in course *2d*, or may be taken concurrently with it. Two lectures and one laboratory period per week.

3 units, winter quarter (Harrison)
2 units, summer quarter (Webster)
summer, 1

14. Ions and Electrons.

Ionization and conductivity of electrolytes. Ionization and conductivity of gases. Electrons in vacuum tubes. Electron theory of metals. Electron theory of magnetism. X-rays and crystal structure. Prerequisites: courses *2c* and *2d*, or their equivalent.

5 units, spring quarter (Rogers) Hours by arrangement
autumn, 2; spring, 24

15. Electrical Theory.

Mathematical theory of electric forces, fields, and potential. The Faraday-Maxwell theory of dielectric stresses. The circuital laws of electromagnetism. Electromagnetic oscillations and waves. Poynting's theorem and the pressure of radiation. Prerequisites: courses *2d*, 8, and 10, or their equivalents.

5 units, winter quarter (Rogers, Webster) MTWThF 9
autumn, 2; winter, 2; summer, 3

16. Radioactivity.

Lectures, lecture experiments and a few laboratory experiments on radioactivity. Prerequisite: course 14 (Ions and Electrons).

2 units, autumn quarter (Ross) Lec. TTh 11
spring, 5

17. Radiation and the Quantum Theory.

Discussions of topics in radiation and quantum theory, and experimental evidence on them, the topics to be chosen with reference to the interests of the members of the course.

3 units, autumn quarter (Webster)
autumn, 2

18. Teachers' Course in Physics.

The development of the scientific method of teaching physics and practice in outlining courses for use in the high school. Two lectures and one laboratory period per week. Prerequisite: course 1 or its equivalent.

3 units, spring and *summer quarters (Brown, Webster)
spring, 3; summer, 9

19. History of Physics.

(*a*) The history of physics and the physical sciences from the earliest times up

to the opening of the nineteenth century (autumn quarter); (*b*) History of the development of some division of physics during the nineteenth century and up to the present (winter quarter).

2 units, autumn and winter quarters (Ross) By arrangement

20. Literature of Physics.

An intensive study of the literature of some special topic in physics. This course is intended primarily for students who expect to engage in research, and wish to become familiar with the present status of the subject of the proposed research, but it may be taken by any student especially interested in some particular branch of physics.

units and quarter by arrangement (Any member of the Department)
autumn (2 groups), 1, 1; winter, 1; spring, 2

21. Research.

Under this head may be included all work on original problems, experimental or theoretical.

units and quarter by arrangement (Any member of the Department)
spring, 1; summer, 2

22. Journal Club.

Oral reports on the current literature of physics by department faculty and graduate students.

autumn, winter, and spring quarters F 4:15–6

Requirements for Graduation.—For graduation in the department the minimum requirement is 60 units of Physics and Chemistry, of which at least 45 units must be Physics. Physics majors are advised to begin their work in Physics with courses 1*a*, 1*b*, and 3.

The Teacher's Recommendation.—The minimum requirement for a major is 45 units of Physics which should include courses 1, 3, 5, and 18. For a minor, the minimum requirement is 25 units, which should include courses 3 and 18.

Laboratory Fees.—Courses with one laboratory period, $3 per quarter; two, $4 per quarter; three, $5 per quarter.

Syllabus Fees.—Courses 1*a*, 1*b* and 3, $1.50 each.

PHYSIOLOGY

Ernest Gale Martin, Professor.

Frank Walter Weymouth, Associate Professor.

James Percy Baumberger, James Rollin Slonaker, Arthur Gibson Vestal, Assistant Professors.

George Daniel Shafer, Instructor.

Thomas Leon Patterson, Acting Instructor (Summer Quarter).

Percy Nicol Annand, Harry Alfred Borthwick, Assistants in Instruction (General Biology).

[**General Biology.**—See under Biology, p. 128.]

1. Elementary Physiology.

The structure and functions of the body with special reference to the mechanisms of external adaptation, namely, muscles, nerves, and sense organs. Designed, primarily, for students who are not looking forward to the study of Medicine. Intended to impart a general conception of the relationship of the human body to its environment. Text-book: The Human Body, Martin, Advanced Course, Tenth Edition. Open to students who have at least ninety units of college credit, or forty-five units, including previous training in Biology and Chemistry.

5 units, autumn quarter (SHAFER) Lec. MWF 10; Lab. ThF 1:05–4:05
autumn, 8

2. Elementary Physiology.

The structure and functions of the body with special reference to maintenance, growth, and energy liberation. In this course, special attention is paid to circulation, digestion, excretion, and metabolism. Although designed to offer in connection with course 1 a survey of the field of human physiology, this course is planned so that it may be taken independently of course 1. Text-book: The Human Body, Martin, Advanced Course, Tenth Edition. Requirements for admission the same as for course 1.

5 units, winter quarter (SHAFER) Lec. MWF 10; Lab. MT 1:05–4:05
winter, 16

S. General Physiology.

This course is designed to give a general survey of the physiology of living things with special reference to marine animals and the application of the fundamental principles thus developed to the functions of other forms, including man. It is planned to accompany the elementary course in Zoology given at the Hopkins Marine Station, and to be so coördinated as to supplement the morphological conceptions developed in that course with the basic principles of physiology, thus furnishing to students a comprehensive survey of Biology. (For further details consult the announcement of Hopkins Marine Station.) Text-book: The Human Body, Martin, Advanced Course, Tenth Edition. For regularly enrolled undergraduates the requirement is concurrent registration in General Zoology; elementary chemistry and botany are highly desirable. To those enrolled only in the summer quarter the course is open with no other restriction than evidence of ability to take it with profit.

5 units, summer quarter, at Hopkins Marine Station (MARTIN, BAUMBERGER, PATTERSON) MTW 1:30–4:30

P1. Elementary Lectures.

A lecture course designed primarily for students of Physical Education, but open to other qualified students. The subject matter of course 1 is covered. Text-book: The Human Body, Martin, Advanced Course, Tenth Edition. Given only in alternate years. Not offered in 1922.

2½ units, summer quarter, first half (SHAFER) MTWThF 9

P2. Elementary Lectures.

A course primarily for students of Physical Education, covering the subject matter of course 2. Given in alternate years.

2½ units, summer quarter, first half (SHAFER) MTWThF 9
summer, 15

3. Principles of Physiology.

An advanced study of the fundamental principles of physiology. The field is surveyed from the standpoint of the functioning of single cells and of multicellular organisms. An especial effort is made to familiarize the student with basic phenomena and their interpretation. The course serves primarily as a preparation for courses 4 and 5, but is designed to meet the needs of advanced students who desire a general survey of the field and are unable to devote the time required for taking courses 3, 4, and 5. Required of majors in the department. Prerequisites for majors: eighteen units of Biology, including Histology; Physics 1, or its equivalent; Chemistry up to and including Physiological Chemistry. Advanced students of other departments presenting less than these prerequisites may be admitted on recommendation of their major departments provided that their previous training is of a character to enable them to take the course with profit; it is desirable that such training include Biology and Elementary Chemistry. Text-book: Starling's or Howell's Physiology.

5 units, winter quarter (MARTIN, BAUMBERGER, SLONAKER) Lec. MWF 8; Lab. ThF 1:05–4:05
winter, 55

4. Physiology of Maintenance.

The detailed application to man of the general principles developed in course 3, so far as they relate to bodily maintenance. The laboratory work is based, as far as possible, on mammals, including the human body itself. Text-book: Starling's or Howell's Physiology. Required of majors in the department. Prerequisite: course 3.

5 units, spring quarter (MARTIN, BAUMBERGER, SHAFER, SLONAKER) Lec. MWF 8; Lab. ThF 1:05–4:05
spring, 53

5. Physiology of Adjustment.

The detailed application of the principles developed in course 3 to the mechanisms by which in mammals and man the organism is adjusted to its environment; thus comprising a study of the sense organs, the nervous system, and the motor apparatus. Prerequisites as in course 3. Advanced students of other departments may be admitted on the terms stated under course 3 provided they present such work in the anatomy of the nervous system and sense organs as will enable them to profit by the course. Required of majors in the department. Text-books: Starling's or Howell's Physiology, Herrick's Introduction to Neurology.

5 or 6 units, winter quarter (WEYMOUTH, BAUMBERGER) Lec. TThS 9; Lab. MT or ThF 1:05–4:05
winter, 42

6. Journal Club.

A study of physiological literature, with oral and written reports. Required during two quarters of majors in the department.

1 unit, autumn, winter, and spring quarters (WEYMOUTH) By arrangement
autumn, 2; winter, 5; spring, 8

7. Special Physiology.

An advanced non-laboratory course open to students who have had one of courses 3, 4, or 5. Designed to afford opportunity for the further study of selected subjects in Physiology. The work will be planned for the individual student.

1 to 5 units, any quarter (DEPARTMENT FACULTY) By arrangement
autumn, 2; winter, 5

8. Research in Physiology.

Special problems involving laboratory work.

(DEPARTMENT FACULTY) By arrangement
autumn, 1; winter, 1; spring, 3

Students are recommended for the A. B. degree by the Department of Physiology who have fulfilled the requirements for admission to the Stanford Medical School, have taken courses 3, 4, 5, and two units of course 6 within the department, or equivalent courses elsewhere, ten additional units either within the department, or in the departments of Anatomy or Bacteriology, and lecture and laboratory courses in physiological chemistry to the amount required by the Stanford Medical School. Anatomy 1 (Histology) is a prerequisite, also, and cannot be counted toward the ten additional units mentioned above as optional from the Department of Anatomy.

The preliminary requirements of the Stanford Medical School are: Fifteen quarter units of college biology (General Biology, Comparative Anatomy, and Embryology usually offered); general chemistry, qualitative and quantitative analysis, lecture course in organic chemistry (24 units of chemistry); thirteen quarter units of college physics; nine quarter units of college English; a reading knowledge of either French or German.

Students who have completed the work of the Lower Division will be admitted as majors in the department, but unless they have taken forty or more units of science, including both general biology and general chemistry, they will probably find it impossible to satisfy the departmental requirements within the regularly allotted six quarters.

The Department requirement for students looking forward to Medicine is designed to enable them to cover the required pre-medical subjects and the work of the first year in the Medical Department of this University, or to fit them to undertake to advantage the work of other first-class medical schools.

The Teacher's Recommendation.—Programs are offered for students seeking the teacher's recommendation as follows: Teaching major: Elementary Chemistry, 9 units; Biology, 18 units, including either Comparative Anatomy, Vertebrate Embryology, or Histology; Physiology, 15 units (courses 3, 4, and 5).

Teaching minor: Elementary Chemistry 9 units; General Biology. 9 units; Physiology, 10 units (courses 1 and 2).

POLITICAL SCIENCE

Victor J. West, Edwin Angell Cottrell, Professors.

Francis William Coker (Ohio State University), Acting Professor (Summer Quarter).

Flora May Fearing, Instructor (Spring Quarter).

Amelia Louise Hedges, Research Assistant.

Requirements for the A. B. degree in Political Science: Forty units

of Political Science, for which certain courses in Law, Economics, History, and Philosophy may be substituted at the discretion of the department. The forty units, however, should include two seminar courses in Political Science, and the course in Constitutional Law. It is the purpose of the department to arrange the remainder of the program of each of its major students to fit his particular aims. Students taking Political Science as a major with the intention of preparing for journalism are referred to the Announcement of Journalism on page 190.

Elementary and General Courses

1. Problems of Citizenship 3: Political Problems.

Fundamental political conceptions: state, government, nature and source of public authority, individual liberty; governmental organization; governmental functions; political parties; international relations; duties of citizens. An elementary course required of Lower Division students. Not open to seniors or graduates. This course, or its equivalent, is prerequisite for all other courses offered by the department.

4 units, autumn, *winter, and *spring quarters (West, Cottrell) MTWTh 10
autumn, 277; winter, 211; spring, 186

2. State and Local Government.

Township, municipal, county, and state government in the United States, with special attention to California. (Open to first-year students in 1921–22 only by permission.)

5 units, autumn quarter (Cottrell) MTWThF 8
autumn, 85

Intermediate Courses

[Not open to students who have less than 40 units of university credit.]

10. Comparative Federal Government.

An inquiry into the operation of the federal principle in the United States, Germany, Switzerland, Argentina, Canada, Australia, and South Africa. Concerned chiefly with the "division of powers" and the relationships between central and local governments.

4 units, winter quarter (West) MTWTh 8
winter, 42

11. Parliamentary Government.

A study of those European governments of which the responsible ministry is the characteristic feature; especial attention to England and France. Emphasis on the relationships between the representative assembly and the executive.

4 units, summer quarter (Coker) TWThF 9
summer, 18

12. Elections.

The organization of the electorate for the performance of the functions of direction and control of government; theories of voting; qualifications for voting; election methods—nominating practices, types of ballot, safeguards against frauds, etc.

4 units, spring quarter (West) MTWTh 8
spring, 10

13. Legislatures and Legislation.

Composition, organization, and functions of representative assemblies; legislative procedure for control purposes and for law-making.

4 units, autumn quarter (West) TWThF 9
autumn, 26

14. Administration.

An examination of the organization and activities of administrative departments and commissions of the federal, state, and municipal governments.

4 units, summer quarter (Cottrell) TWThF 8
summer, 16

Advanced Courses

[Not open to students who have less than 80 units of university credit, except by special arrangement.]

20. History of Political Theory.

Development of political thinking from ancient times to the present: Classical period; Medieval period, Renaissance and Reformation; revolution and reaction; the analytical school; the historical school; recent tendencies.

4 units (———) [Not given in 1921–22]

20a. Recent and Contemporary Political Theory.

A survey of leading political ideas since the middle of the nineteenth century, with special reference to recent and contemporary doctrines and movements. It will embody a study of the political writings of important authors (such as John Stuart Mill, Herbert Spencer, T. H. Green, the English Collectivists, Bertrand Russell, Trietschke, Gierke, Duguit, Laski) and a discussion of current theories as to the relation of the State to property and labor, including the political programs of recent socialism, guild socialism, syndicalism, the sociologists, and the Social Catholic movement.

4 units, summer quarter (Coker) TWThF 11
summer, 16

21. American Political Theories.

Development of political thinking in America from colonial times to the present day, including the theories of the Revolution, the Constitution, the Jeffersonian and Jacksonian democracies, the slavery controversy, "states' rights," and modern tendencies.

4 units, spring quarter (Fearing) TWThF 11
spring, 17

22. Government in Its Relation to Industry.

A study of political problems as affected by the changes in business organization since the industrial revolution. The "laissez faire" versus the "general welfare" concept of government. Measures needed to make the general welfare concept effective.

4 units (Cottrell) [Not given in 1921–22]

23. Political Parties.

Development of nominating machinery and campaign methods in the United States; party organization; party activities; reform movements; the true functions of parties; the party systems of the various countries compared.

4 units, autumn quarter (West) TWThF 10
autumn, 20

24. Administration of Justice.

The principles and methods of administrative and judicial organization and procedure for the enforcement of law—the settlement of controversies and the conviction and punishment for violation of law (See Law 50.)

25. Problems of Municipal Administration.

A detailed study of the organization, functions, methods, policies, and problems of municipal departments.

4 units, spring quarter (FEARING) TWThF 9
spring, 17

26. Methods of Governmental Research.

The purpose of this course is the direction and training of students in methods of collecting and presenting data in governmental and other public fields.

4 units, summer quarter (COTTRELL) TWThF 10
summer, 7

27. International Administration.

Study of the international commissions established prior to the Great War; the coöperating agencies set up by the allied and associated powers; and the international commissions provided for by the Treaty of Versailles.

4 units (———) [Not given in 1921–22]

30. Seminar in Politics.

Topic for 1921–22: Legislative Procedure in the United States Congress.

2 units, winter quarter (WEST) Th 2:05
winter, 11

31. Seminar in Government.

Topic for 1921–22: Municipal Functions.

2 units, autumn quarter (COTTRELL) T 2:05
autumn, 20

32. Seminar in International Relations.

2 units (———) [Not given in 1921–22]

The attention of students interested in political science is called to the following courses offered by other departments:

PUBLIC FINANCE. (Economics 21.)
TROPICAL COLONIZATION IN THE FAR EAST. (History 90.)
GOVERNMENTS OF THE FAR EAST. (History 92.)
CONSTITUTIONAL LAW. (Law 10 and 11.)
ADMINISTRATIVE LAW AND PUBLIC OFFICERS. (Law 12.)
MUNICIPAL CORPORATIONS. (Law 13.)
PUBLIC INTERNATIONAL LAW. (Law 14)
JUDICIAL ADMINISTRATION. (Law 50.)
SOCIAL ORDER AND THE INDIVIDUAL. (Philosophy 8.)
SOCIAL PSYCHOLOGY. (Psychology 9.)

PSYCHOLOGY

FRANK ANGELL, Professor.
JOHN EDGAR COOVER, Associate Professor, and Research Fellow in Psychic Phenomena.
MAUD AMANDA MERRILL, GERTRUDE MAY TRACE, Instructors.
KNIGHT DUNLAP, BERNARD CAPEN EWER, Lecturers (Summer Quarter).

1. General Psychology.

Lectures and exercises. Not open to first-year students except by permission. Titchener's Text-book of Psychology is used as a book of reference.

3 units, autumn and winter quarters (ANGELL) MWF 11
autumn, 159; winter, 129

2. Experimental Psychology.

The experimental method in psychology. Sensation, perception, attention, affection, suggestion, and other complex mental processes will receive careful study through typical experiments. Prerequisite: credit for or enrollment in course 1. (One, two, or three quarters.)

3 units, autumn, winter, and spring quarters (TRACE) MT 1:05–4:05
autumn, 22; winter, 17; spring, 21

3. Mental Hygiene.

Some of the practical considerations of psychology, their economic use in study and thought, and their application to every-day life. The utilization of psychological principles that make for mental efficiency and health. Especially adapted to freshmen. No prerequisite.

3 units, autumn quarter (MERRILL) MWF 9

4. History of Psychical Research.

Lecture course. A canvass of opinion on psychic phenomena is made from the daily press, from the popular magazines, and from professional literature; a detailed study of the more important investigations by psychical researchers is made; canons of evidence and of experimental method are adduced and the present status of the various psychical phenomena is defined. The psychology of testimony, and the nature of scientific proof are considered in connection with the cases of research chosen for study. Assigned reading, class reports.

5 units, spring quarter (COOVER) [Not given in 1921–22]

5. Psychology of Feeblemindedness.

A study of mental retardation; results of experimental investigations of the complex mental processes; manifestations and etiology. Prerequisite: Psychology 1.

3 units, winter and spring quarters (MERRILL) MWF 9
spring, 18; summer, 10

6. Experimental Psychology.

A course designed for prospective teachers. It deals espeically with the learning processes, both simple and complex. Prerequisite: course 1, or equivalent.

3 units, autumn and winter quarters (TRACE) ThF 1:05–4:05
autumn, 18; winter, 18

6a. Experimental Psychology.

A continuation of course 6, but ranging over a wider field. Special studies arranged to meet the needs of individual students.

3 units, spring quarter (TRACE) By arrangement
spring, 8

6b. Laboratory Practice in Typewriting.

A critical study of the processes of typing during rise in efficiency beyond thirty words per minute; of causes of errors especially, and their removal.

1 to 3 units, summer quarter (COOVER) By arrangement
summer, 4

7. Statistical Methods.

A demonstration and working course in statistical methods; theory discussed in connection with practice; the determination and evaluation of measures of central tendency, dispersion, precision, reliability, differences between means and between distributions; seriation and plotting, curve-fitting; correlation. Students provide Davenport's "Statistical Methods" and a polyphase slide-rule; calculating machines and mathematical tables available. Some knowledge of algebra a prerequisite.

5 units, autumn quarter (COOVER) MTWThF 10
autumn, 8; summer, 1

8. Psychophysical Methods.

A seminar course. Brief review of the development of psychophysical methods; of the recognized sources of error in psychological experiment and means of eliminating or measuring them. Application of standard Phi Gamma methods, using Urban's tables, to typical data, usually obtained by the student in his current laboratory work. Discussion of the "psychometric function." Titchener's Quantitative Manual and the professional journals are used for reference. Statistical Methods a prerequisite.

2 units, winter quarter (COOVER) TTh 10
winter, 5

9. Social Psychology.

Theories of social consciousness and the so-called collective mind; an analysis of perceptual, ideational, instinctive, and emotional factors in social consciousness; suggestion and mob mind; brief consideration of institutional and community life. Psychology 1 is prerequisite.

2 units, winter quarter (TRACE) TTh 11

10. Abnormal Psychology (Clinical).

Types of social misfits as they appear in the schools, at the Juvenile Court, and at the County Health Center. An opportunity is presented for training in making mental diagnoses. Observation of treatment and disposition of cases. Prerequisites: Psychology 1 and 2.

autumn, winter, and spring quarters (MERRILL) By arrangement
autumn, 8; winter, 10; spring, 14; summer, 16

11. Advanced Laboratory Psychology.

3 units, autumn, winter, and spring quarters (ANGELL) By arrangement
2 to 3 units, summer quarter (COOVER) By arrangement
autumn, 6; winter, 4; spring, 5; summer 7

12. Psychological Optics.

Presupposes or accompanies courses 2 and 11, or their equivalent.

3 units, spring quarter (ANGELL) MWF 11
spring, 3

13. Memory, Imagination, and Thought.

A study of memory and learning; methods and results of experimental investigations and the main theories involved. Prerequisite: Psychology 1 or equivalent.

2 units, spring quarter (Trace) TTh 11

14. Mind and Body.

A seminar course. The problem of the mind-body relationship is first given a brief historical consideration. The psychological postulate of "psychophysical parallelism" is critically inspected. The pertinent data of psychology, pathopsychology, and medical practice with mental disorders (including the aphasias) are collected and studied. The phenomena of the dissociation of personality and of hypnotism are reviewed; and Freudian psychoanalysis is briefly but critically examined from the standpoint of physiological psychology. Prerequisite: Psychology 1.

5 units, spring quarter (Coover) By arrangement
spring, 6

15. Systematic Psychology.

2 units, autumn and winter quarters (Angell) T 2
spring, 5

16. Psychical Research.

A research course offering opportunity to attack systematically any problem in the field for which the equipment is adequate.

autumn, winter, and spring quarters (Coover) By arrangement
autumn, 4; winter, 6; spring, 2; summer, 4

17. Research.

3 or 4 quarters (Angell, Coover) By arrangement
autumn, 2; winter, 3; spring, 4; summer, 2

18. Systematic Psychology.

A study of mental processes as related to organic responses. Some acquaintance with psychology is presupposed.

3 units, summer quarter (Dunlap) MWF 11
summer, 20

19. Feeling and Emotion.

2 units, summer quarter (Dunlap) TTh 11
summer, 21

20. Outlines of General Psychology.

Lecture, reading, and demonstration course for nurses.

2½ units, summer quarter, 1st half (Ewer) MTWThF 9
summer, 35

ROMANIC LANGUAGES

Oliver Martin Johnston, Clifford Gilmore Allen, Aurelio Macedonio Espinosa, Professors.

Stanley Astredo Smith, Alfred Coester, Assistant Professors.

Charles Louis Helmingé, Felipe Morales de Setién, Acting Assistant Professors (Summer Quarter).

Frederick Anderson, William Leonard Schwartz, Instructors.

The undergraduate courses in the Romanic Languages are planned so

as to give students an intimate acquaintance with the modern forms of the languages spoken in the principal neo-latin countries. To this end systematic attention is paid to pronunciation, reading, syntax, and conversation. In the higher courses special emphasis is laid on the study of literature. In order to give students an opportunity to become familiar with the spoken idioms, the majority of the courses are conducted in the language which forms the object of study.

The department offers advanced courses leading to the degree of Master of Arts and Doctor of Philosophy. The library contains adequate material for graduate courses in French and Spanish literature and philology. The Dante collection is also adequate for graduate work in this subject. The department also accepts candidates for certification as high-school teachers of French and Spanish in California and provides courses to meet the special needs of such candidates. Either French or Spanish may be selected as a major subject. In addition to the elementary course, which does not count as a part of the requirement, majors in French or Spanish must complete the following courses for the degree of Bachelor of Arts:

(1) Second-year course (15 units);

(2) Advanced Composition and Conversation (9 units);

(3) Six courses in literature or philology in the major subject.

These six courses must include an outline course in the literature of the major subject (A56 for French majors and B56 for Spanish, or their equivalent). It is desirable that the outline course precede the other literary courses in the subject.

Major students must register each quarter for at least one course in the major subject. This provision is intended to prevent students from crowding major requirements into certain quarters and from registering as French or Spanish majors in other quarters without taking any work in the major subject.

The total number of units required for the degree of A. B. will be approximately 43 or 44 units, exclusive of the elementary course.

The Teacher's Recommendation.—The requirements for the teacher's recommendation are the same as for the Bachelor's degree with the exception of the fact that under (3) must be included the following courses:

A56 and A57 (or their equivalent), and A67, for majors in French.

B56 (or its equivalent), and B66, for majors in Spanish.

It is also recommended that course 106 in the Department of Germanic Languages be taken at the same time as A67 or B66. A reading knowledge of Latin and German is highly desirable. Recommendations

will be given only on the vote of the department and will demand a degree of scholarship above the ordinary passing mark.

Some of the courses scheduled for the Summer Quarter extend through only one term of the quarter. Others extend through both terms, but credit will be granted for work done in either term.

First-year French and Spanish are given by competent instructors under the supervision of the Department Faculty, and a fee of $7.50 per quarter is charged. University credit is given for this work.

Elementary and Intermediate Courses

A. FRENCH

A1. Elementary French.

Training in pronunciation by means of phonetic symbols. Oral work. The elements of French grammar; the regular verb and the verbs *avoir* and *etre;* Fraser and Squair, French Grammar, 20 lessons. Reading from Aldrich and Foster's French Reader.

5 units, autumn and *winter quarters (Herkman, J. E. Smith, Woodbridge)
(autumn) MTWThF 8, 9, 10, 11; (winter) MTWThF 9
autumn (5 sections), 34, 23, 24, 20, 32; winter, 31

A2. Elementary French (continued).

Oral work continued. Study of the irregular verbs. Fraser and Squair, French Grammar, to end of Part I. Reading from Aldrich and Foster's French Reader Prerequisite: A1, or one year of high-school French.

5 units, winter and *spring quarters
(winter) MTWThF 8, 9, 10, 11; (spring) MTWThF 9
winter (4 sections), 23, 20, 25, 21; spring, 25

A3. Elementary French (continued).

Thorough review of grammar. Oral work. Reading: Labiche, La Poudre aux yeux. About, Le roi des montagnes. Prerequisite: A2, or equivalent.

5 units, spring quarter (J. E. Smith) MTWThF 8, 9, 10, 11
autumn, 27; spring (3 sections), 21, 18, 22

A21. Second Year French.

Grammatical review. Composition: Carnahan's French Composition. Reading: Daudet, Tartarin de Tarascon; Dumas, La Question d'argent. Outside reading of simple texts with written reports in French. Course conducted as far as possible in French. Prerequisite: A3, or two years of high-school French.

5 units, autumn and *summer quarters
(autumn, Anderson, Stauff) MTWThF 9, 10
autumn (3 sections), 30, 23, 28; summer, 9 (summer, Schwartz) MTWThF 9

A22. Second Year French (continued).

Grammar and Composition: same text as in A21. Reading: Balzac, Eugénie Grandet; Augier, Le Gendre de M. Poirier. Outside reading with written reports in French. Conducted as far as possible in French. Prerequisite: A21, or three years of high-school French.

5 units, winter quarter (Anderson) MTWThF 9, 10
winter (3 sections), 33, 19, 19

A23. Second Year French (continued).

Grammar and Composition; same text as in A21 and A22. Class reading: Dow

and Skinner, Quelques Contes des Romanciers Naturalistes; Augier, Le Fils de Giboyer. Outside reading with written reports in French. Conducted in French. Prerequisite: A22, or equivalent.

5 units, spring quarter (SCHWARTZ) MTWThF 9, 10
spring (3 sections), 23, 31, 22

A24. French Pronunciation.

Training in French pronunciation by means of practical phonetics. This course is of special interest to prospective teachers. Prerequisite: A3, or the equivalent.

3 units, winter quarter (SCHWARTZ) TTh 10
winter, 15

A25. French Conversation.

Classroom conversation on various aspects of modern French life and on current events. For students registering for two units, reading in French newspapers and periodicals. Oral reports in French. Prerequisite: A3 or the equivalent. Students should consult the instructor before registering in this course.

1 or 2 units, winter and *summer quarters (SCHWARTZ) MWF 11
winter, 10; summer, 3

A26. Second Year French Reading Course.

Intended for engineers. Prerequisite: A3. Courses A26, 27, and 28 are not open to students taking A21, 22, and 23.

3 units, autumn quarter (J. E. SMITH) MWF 11
autumn, 25

A27. Second Year French Reading (continued).

3 units, winter quarter (J. E. SMITH) MWF 11
winter, 14

A28. Second Year French Reading (continued).

3 units, spring quarter (HERKMAN) MWF 11
spring, 12

A30. Directed Reading.

1 or 2 units per quarter (STAUFF)
autumn, 12; winter (4 groups), 8, 1, 11, 3; spring (4 groups), 6, 2, 4, 16; summer, 1

B. SPANISH

B1. Elementary Spanish.

The elements of grammar, composition and conversation. Texts: Espinosa and Allen, Beginning Spanish, lessons I-XXV; Espinosa, First Spanish Reader, I.

5 units, autumn and *winter quarters (BAILIFF, CAMPBELL, HALL, OSUNA, PETERS) (autumn) MTWThF 8, 9, 10, 11; (winter) 9
autumn (7 sections), 27, 25, 28, 14, 26, 44, 37; winter (2 sections), 18, 20

B2. Elementary Spanish (continued).

Texts: Espinosa and Allen, Beginning Spanish, lessons XXVI-LIII; Espinosa, First Spanish Reader, II; Quinteros, La Muela del Rey Farfán.

5 units, winter and spring quarters (winter) MTWThF 8, 9, 10, 11; (spring) 9
autumn (3 sections), 42, 24, 52; winter (5 sections), 33, 31, 25, 51, 34; spring, 38

B3. Elementary Spanish (continued).

Texts: Espinosa and Allen, Beginning Spanish, lessons LIV-LXVIII; Allen, Fábulas y Cuentos; Blasco Ibáñez, La Batalla del Marne.

5 units, spring quarter MTWThF 8, 9, 10, 11
autumn, 20; spring (6 sections), 24, 24, 20, 15, 19, 27; summer, 12

B21. Second Year Spanish.

Review of grammar, with abundant practice in conversation and composition. Reading aloud in Spanish, with careful drill in pronunciation. Reading and interpretation of Spanish texts, with a minimum of translation. Conversation in Spanish based on the texts read. Bi-monthly tests in translation and written reproduction of Spanish texts or short stories. Conducted mainly in Spanish.

Composition and conversation (MWF). Text: Espinosa-Allen, Elementary Spanish Grammar, lessons XVI-XLIX.

Reading, or pronunciation, and conversation (TTh). Texts: Benavente, El Principe que todo lo aprendió en los Libros; Palacio Valdés, La Hermana San Sulpicio.

5 units, autumn quarter (ALLEN, BAILIFF, COESTER) MTWTF 9, 11; summer, (ALLEN) MTWThF 9
autumn (3 sections), 42, 24, 52; summer, 4

B22. Second Year Spanish (continued).

Composition and conversation (TTh). Texts: Espinosa, Spanish Composition and Conversation, pages 1–97. For grammar review and reference, Espinosa-Allen, Elementary Spanish Grammar. Original exercises in Spanish composition. Final examinations on all regular and irregular verbs and the use of the subjunctive.

Reading, pronunciation, and conversation (MWF). Texts: Martínez Sierra, Teatro de Ensueño; Blasco Ibáñez, La Barraca.

5 units, winter quarter (COESTER) MTWThF 9, 11
winter (3 sections), 34, 31, 22

B23. Second Year Spanish (continued).

Composition and conversation (TTh). Oral drill in conversation and the mastery of a correct pronunciation. Short stories, and original compositions. Advanced Spanish grammar. Texts: Espinosa, Spanish Composition and Conversation, pages 97–200. Reading and interpretation of Spanish texts (MWF). Texts: Martínez Sierra, Canción de Cuna; Coester, Cuentos de la América Española.

5 units, spring quarter (COESTER) MTWThF 9, 11
spring (2 sections), 15, 49

B24. Spanish Pronunciation.

Lectures and practical exercises in the elements of Spanish pronunciation. Open to all. This course should be taken by Spanish majors in the first year.

2 units, autumn quarter (ESPINOSA) TTh 10
autumn, 33

B26. Second Year Spanish Reading Course.

Intended for engineers. Prerequisite: B3.

3 units, autumn quarter (OSUNA) MWF 11
autumn, 21

B27. Second Year Spanish Reading (continued).

3 units, winter quarter (CAMPBELL) MWF 11
winter, 28

B28. Second Year Spanish Reading (continued).

3 units, spring quarter (CAMPBELL) MWF 11
spring, 17

B30. Directed Reading.

1 or 2 units per quarter
autumn, 2; winter (3 groups), 1, 1, 1; spring, 5; summer, 1

C. ITALIAN

C1. Elementary Italian.
Wilkins, First Italian Book; Wilkins, Italia.
5 units, autumn quarter (STAUFF) MTWThF 11
autumn, 19

C2. Elementary Italian (continued).
Grandgent's Italian Grammar. Conversation. Wilkins and Altrocchi, Italian Short Stories. Gioggio, Due Commedie Moderne. Prerequisite: C1, or equivalent.
5 units, winter quarter (STAUFF) MTWThF 11
winter, 18

C3. Elementary Italian (continued).
Review of Grammar. Composition and Conversation. Goldoni, La Locandiera. Manzoni, I Promessi Sposi (edit. Geddes and Wilkins). Prerequisite: C2, or equivalent.
5 units, spring quarter (STAUFF) MTWThF 11
spring, 14

C21. Second Year Italian (continued).
Review of grammar. Composition and conversation. Reading of selected prose and poetry of the nineteenth and twentieth centuries, with a minimum of translation and particular attention to pronunciation. Collateral reading and reports. Prerequisite: C3 or equivalent.
3 units, autumn quarter (SMITH) MWF 11
autumn, 3

C22. Second Year Italian (continued).
Prerequisite: C21, or equivalent.
3 units, winter quarter (SMITH) MWF 11
winter, 2

C23. Second Year Italian (continued).
Prerequisite: C22, or equivalent.
3 units, spring quarter (SMITH) MWF 11
spring, 3

C30. Directed Reading.
1 or 2 units (SMITH)
autumn, 2

D. PORTUGUESE

D1. Elementary Portuguese.
Drill on Pronunciation. Elements of grammar. Reading of easy texts.
5 units, autumn quarter (DE SOUZA) MTWThF 8
autumn, 4

D2. Elementary Portuguese (continued).
Grammar. Composition. Conversation. Reading. Prerequisite: D1, or equivalent.
5 units, winter quarter (DE SOUZA) MTWThF 8
winter, 6

D3. Elementary Portuguese (continued).
Prerequisite: D2, or equivalent.
5 units, spring quarter (———) MTWThF 8

II. Advanced and Graduate Courses

A. FRENCH

A41. Third Year French Composition and Conversation.
Composition based on French texts. Outside reading and written reports in French. Conducted in French. Prerequisite: A23, or four years of high school French.
3 units, autumn and *summer quarters (autumn, Smith, Anderson) MWF 10
autumn (2 sections), 25, 36; summer, 7 (summer, Anderson) MWF 10

A42. Third Year French Composition (continued).
Prerequisite: A41, or equivalent.
3 units, winter quarter (Anderson, Schwartz) MWF 10
winter (2 sections), 16, 35

A43. Third Year French Composition (continued).
Prerequisite: A42, or equivalent.
3 units, spring quarter (Schwartz, Smith) MWF 10
spring (2 groups), 16, 8

A44. French Classics.
Reading in class of masterpieces of French literature. Prerequisite: A23, or equivalent.
3 units (Schwartz) [Not given in 1921–22]

A51. Fourth Year French Composition.
Translation of connected English prose into French. Original composition. Dictation. Conducted in French. Prerequisite: A43.
3 units, winter quarter (Smith) MWF 10
winter, 4

A52. Continuation of A51.
Prerequisite: A43, or the equivalent.
3 units, spring quarter (Smith) MWF 10

A53. Continuation of A52.
Prerequisite: A43, or the equivalent.
3 units, summer quarter (———) MWF 10

A54. Cours de Style.
Ouvert aux seuls étudiants possédant une connaissance parfaite des principes essentiels de la grammaire française. Thèmes, Compositions françaises (narrations, descriptions, etc.). Prerequisite: A43, or the equivalent.
2 units, summer quarter, 1st half (Helmingé) MTWF 11
summer, 7

A55. History of French Civilization.
A brief survey of the history of French civilization from the Middle Ages to modern times; this course is intended to furnish a background to the study of French literature. Prerequisite: A3, or the equivalent.
5 units (Anderson) [Not given in 1921–22]

A56. Outline Course in the History of French Literature.
Pellissier: Histoire de la littératura française. Vreeland and Michaud: Anthology of French Prose and Poetry. Outside reading. Conducted in French. Prerequisite: A23, or the equivalent.
5 units, autumn and *summer quarters (Smith, Anderson) MTWThF 9
autumn, 31; summer, 10

A58. French Literature in the Seventeenth Century.

Lectures on the formation of the classic ideal in France and on the main movements, authors, and works of the classic age. Outside reading and reports. Conducted in French. Prerequisite: A23, or the equivalent.

4 units, winter quarter (SMITH) MTWF 10
winter, 10

A59. French Literature in the Eighteenth Century.

A study of the main ideas and tendencies of the period as illustrated by the lives and works of its most important authors. Outside reading and reports. Conducted in French. Prerequisite: A23, or the equivalent.

3 units, spring quarter (SMITH) MWF 2:05
spring, 6

A60. Molière.

The complete works will be read with special attention to the characters in the plays. Readings and reports. Prerequisite A23, or equivalent.

3 units, spring quarter (SCHWARTZ) MWF 8
spring, 24

A61. The French Historians.

Lectures on French historiography; reading of historical classics from Joinville to Taine. Prerequste: A23, or equivalent.

3 units, autumn quarter (ANDERSON) MWF 11
autumn, 29

A62. The French Novel.

Lectures in French on the history of the novel in France. Reading and analysis of four French novels. Prerequisite: A23, or equivalent.

3 units (SCHWARTZ) [Not given in 1921–22]
2½ units, summer quarter (HELMINGÉ) MTWThF 9
summer, 7

A63. The French Drama.

Lectures on the development of the French drama with special emphasis on the nineteenth century. Outside reading and reports. Prerequisite: A23, or equivalent.

3 units (SMITH) [Not given in 1921–22]

A64. Literary Criticism.

Lectures on the history of literary criticism in France. A careful study of Madame de Stael; De l'Allemagne, and various works by Schérer, Taine, and Renan. Prerequisite: A23, or equivalent.

3 units, winter quarter (ANDERSON) MWF 11
winter, 21

A65. French Lyric Poetry.

Course conducted in French. Preliminary study of medieval poetical forms, leading to extensive reading in class of nineteenth century poets. Intended to familiarize students with the best-known masterpieces. Text-books: Oxford Book of French Verse, Henning's French Lyrics of the Nineteenth Century. Prerequisite: A 23, or equivalent.

3 units, winter and summer quarters (SCHWARTZ) MWF 8
winter, 13; summer, 6

A66. The Romantic Movement in France.

A study of the main features of romanticism as manifested in the lives and works of the forerunners and the most important representatives of the French romantic movement. Lectures in French. Outside reading. Class discussions. Prerequisite: A58 or equivalent.

3 units (SMITH) [Not given in 1921–22]

A67. Problems of Teaching French.

Practice in the use of the phonetic method as a means of teaching French pronunciation, review of French grammar lectures on methods of teaching French, pedagogical bibliography, and suggestions regarding available text-books. Practice teaching.

3 units, autumn and *summer quarters (autumn, JOHNSTON; summer, ANDERSON) MWF 2:05–3:05
autumn, 13; winter, 1; summer, 3

A68. Introduction to the Study of Old French.

Reading and interpretation of old French texts selected from Bartsch-Wiese, Chrestomathie de L'Ancien Français, with a study of Old French Phonology and Morphology.

3 units, winter quarter (JOHNSTON) MWF 3:05–4:05
winter, 6

A69. French Historical Grammar.

Lectures on Old French Phonology and Morphology.

3 units, spring quarter (JOHNSTON) MWF
spring, 7

A70. French Historical Syntax.

The most important phases of modern French syntax will be studied from a historical point of view. This course is intended primarily for teachers.

2 units (JOHNSTON) [Not given in 1921–22]

A71. Old French Literaure.

French literature from the beginnings to the 15th century, with emphasis on the literary and social traits. Outside reading and reports.

3 units, winter quarter (JOHNSTON) MWF 2:05–3:05

A72. French Arthurian Romances.

Lectures on the romances of the Round Table, the legend of the Holy Grail, and the legend of the Tristan and Iseut. Outside reading and reports.

2 units, winter quarter (JOHNSTON) MW 2:05–3:05
winter, 8

A73. Corneille.

3 units, spring quarter (JOHNSTON) Th 2:05–4:05
spring, 25

A74. French Seminary.—French Syntax.

3 units, winter and summer quarters (JOHNSTON) T 2:05–4:05

A75. French Seminary.—The Old French Epic.

3 units (JOHNSTON) [Not given in 1921–22]

B. SPANISH

B41 Advanced Spanish Composition and Conversation.

Review of grammar, with reading and interpretation of literary texts. Oral and

written reproduction of short stories and literary material. Original exercises in composition. Prerequisites: courses B21, B22.

3 units, autumn and *summer quarters (Espinosa, Bailiff) MWF 10
autumn (2 sections), 22, 31; summer, 12

B42. Advanced Spanish Composition and Conversation (continued).

Prerequisite: B41.

3 units, wniter quarter (Allen, Espinosa) MWF 10
winter (2 sections), 26, 11

B43. Advanced Spanish Composition and Conversation (continued).

Translation into Spanish of select English prose. Prerequisite: B42.

3 units, spring and summer quarters (Espinosa) MWF 10
spring, 35

B44. Commercial Spanish.

Letter writing and introduction to commercial practice. Prerequisite: B23. (Note: Students electing B44 are expected to take B45.)

3 units, autumn quarter (Coester) MWF 9
autumn, 22

B45. Commercial Spanish

Letter writing continued. Study of commercial documents. Writing of advertisements and circular letters. Prerequisite: B44, or equivalent.

3 units, winter quarter (Coester) MWF 9
winter, 20

B47. Fonética española.

Descripción de los sonidos de la lengua española. Practicas de lectura y de transcripción fonética. Texto: T. Navarro Tomás, Tratado de pronunciación española. Prerequisite: B43.

2½ units, summer quarter, 1st half (De Setién) MTWThF 2:05
summer, 4

B48. Argentine Literature.

The aim of this course is to acquaint the student with the history and mental characteristics of the Argentines through the medium of their own literary productions. Prerequisite: B23.

3 units, winter quarter (Coester) MWF 10
winter, 8

B49. The Modernista Movement in America and Spain.

Rubén Darío, Gutiérrez Nájera, Silva, Chocano and their influence on Spanish lyric poets since 1898. Prerequisite: B41, or equivalent.

3 units, spring quarter (Coester) MWF 10
spring, 14

B50. Spanish-American Literature.

General outline. The writings of Spanish Americans will be studied from the point of view of the nationality of the writers and as the product of differing political, social, and geographic conditions. Prerequisite: B23.

3 units, autumn quarter (Coester) MWF 10
autumn, 9

B51. Curso de composición y estilo.

En este curso se estudian algunas obras literarias en prosa para modelos de

estilo. Composiciones originales cada semana. Gramática de referencia: Bello-Cuervo, Gramática de la Lengua Castellana. Prerequisites: B41, B42, B43.

3 units, autumn quarter (Espinosa) MWF 9
autumn, 9

B52. Curso de composición y estilo (continuación).

Prerequisite: B51.

3 units (Espinosa) [Not given in 1921–22]
winter, 6

B53. Curso de composición y estilo (continuación).

Prerequisite: B52.

3 units (Espinosa) [Not given in 1921–22]

B54. Fonética Española.

2 units, summer quarter, 1st term (Espinosa) MTWTh 9

B55. Historia de la civilización española.

Conferencias sobre la historia de Española y la civilización española: interpretación de la cultura española y del espiritu español en España y en la América española. Historia, política nacional, arte, literatura, renacimiento intelectual. Prerequisite: B23, or equivalent.

2½ units, summer quarter, 1st half (De Setién) MTWThF 2:05
summer, 5

B56. Spanish Literature.

Outline course. Fitz-Maurice Kelly: Historia de la literatura española. Lectures and recitations. Prerequisite: B58.

3 or 5 units, winter and summer quarters (Allen) MWF 11
winter, 19; summer, 8

B58. Spanish Classics.

A study of the principal authors of the classical period. Representative texts will be read of Cervantes, Lope de Vega, Calderón Alarcón, Tirso de Molina, as well as selections from Ford's A Spanish Anthology. Open to students who have completed courses B21, B22, B23, or their equivalents.

4 units, autumn and summer quarters (Allen) MTWTh 11
autumn, 18; summer, 6

B59. Spanish Literature in the Eighteenh Cenury.

3 units (Allen) [Not given in 1921–22]

B60. Modern Spanish Novel.

A study of the modern Spanish novel and its relation to the development of the novel in France and other European countries. Lectures and collateral readings. Prerequisites: B21, B22, B23, or their equivalents.

3 units, autumn quarter (Allen) MWF 2:05
autumn, 17

B61. Teatro Español Contemporáneo.

(*a*) Breve resumen de la historia del teatro español en el siglo XIX: Rivas, Gutiérrez, Zorrilla, Bretón de los Herreros, Ayala, Echegaray, (*b*) Estudios de los dramáticos contemporáneos, con atención especial a Galdós, Jacinto Benavente, los Quinteros, Eduardo Marquina y Martínez Sierra. Prerequisites: B21, B22, B23, or their equivalent.

3 or 5 units, spring quarter (Espinosa) MWF 9
spring, 22

B62. Dramáticos Contemporáneos.

Galdós, Benavente, Marquina, Martínez Sierra, Valle-Inclán. Prerequisites: B21, B22, B23, or their equivalents.

1 unit, summer quarter, 2d half (ESPINOSA) TTh 10

B64. Early Spanish Lyric Poetry.

A study of the various schools of lyric poets, as the Galacian, the Italian, the National, etc. Prerequisite: B58.

3 units (ALLEN) [Not given in 1921–22]

B65. Modern Spanish Lyrics.

Prerequisites: B21, B22, B23, or their equivalents.

3 units, winter quarter (ALLEN) MWF 2:05
winter, 16

B66. Problems of Teaching Spanish.

A consideration of the important questions of Spanish pronunciation, grammar, reading and literary interpretations, together with a discussion of the general questions of methods of teaching as applied to the teaching of elementary and advanced Spanish. Pedagogical bibliography and school texts. Practice teaching.

3 units, spring quarter (ESPINOSA) MWF 11
spring, 17

B67. Introduction to the Study of Old Spanish.

Lectures on old Spanish Phonology and Morphology, with linguistic exercises based on El Cantar de mío Cid. Ford, Old Spanish Readings.

3 units (ESPINOSA) [Not given in 1921–22]

B68. Spanish Historical Grammar.

Lectures and study of Old Spanish texts.

3 units (ESPINOSA)
winter, 7

B71. Origins of Spanish Drama.

A history of the drama from the earliest times to its full development with Lope de Vega. Lectures and collateral reading.

3 units (ALLEN) [Not given in 1921–22]

B72. Spanish Seminary.

Old Spanish Ballads. Lectures and investigations on special topics.

3 units, autumn quarter (ESPINOSA) W 2:05–4:05
autumn, 8

B73. Spanish Seminary.

Lope de Vega. Lectures and assigned topics.

3 units, summer quarter (ALLEN) T 10–12
summer, 8

B74. Old Spanish Literature.

Spanish literature from the earliest times to the beginning of the 15th century. Lectures, reading of texts, and assigned topics.

3 units (ALLEN) [Not given in 1921–22]

C. ITALIAN

C51. Dante and the Divine Comedy.

Reading and interpretation of the Divine Comedy. Lectures on Dante, the Divine

Comedy, and the principal problems of medieval life and thought reflected in the poem. Outside reading and reports. Open to juniors and seniors in all departments.

3 units, autumn quarter (JOHNSTON) MWF 8
autumn, 25

C52. Advanced Italian.

Dante, La Divina Commedia. Study and interpretation of the text; discussion of the literary problems of the poem.

4 units (JOHNSTON) [Not given in 1921–22]

C53. Advanced Italian (continued).

4 units (JOHNSTON) [Not given in 1921–22]

E. PROVENÇAL

E51. Introduction to the Study of Old Provençal.

Reading of selected passages from Appel's Provenzalische Chrestomathie, with a study of Old Provençal Phonology and Morphology.

3 units, spring quarter (SMITH) W 4:05–6
spring, 5

F. GENERAL COURSES

F51. Romance Versification.

The fundamental principles of Romance verse structure, with particular attention to French and Spanish, lectures and practical exercises.

3 units, summer quarter (ESPINOSA) MWF 11

F52. Phonetics.

[See course 131 in the Department of Germanic Languages.]

F53. Latin Syntax.

[See course 12 in the Department of Latin.]

F54. Bibliography and Methods of Romanic Philology.

A brief description of the field of Romanic Philology and of the principal books which deal with it. A discussion of the technique of philological studies.

1 unit (ANDERSON) [Not given in 1921–22]

A100. Graduate Thesis.

3 or 4 units
spring (2 groups), 1, 1; summer, 3

B100. Graduate Thesis.

3 or 4 units
spring, 2; summer, 3

JOURNAL CLUB

The instructors in the department and the advanced students meet on the first Thursday of each month for the discussion of the periodicals and new books.

SLAVIC

HENRY LANZ, Assistant in Instruction.

SLAVIC LITERATURE

[The following courses do not require a knowledge of any language other than English.]

C1. Slavic Literature.

It is the object of this course to give a brief account of the folklore and literature of Slavic nations such as Bohemia, Servia, Bulgaria, and Poland, in connection with their history and their religious development. Outside reading and reports.

2 units, autumn and spring quarters (LANZ) TTh 9
autumn, 49; spring, 30

C2. History of Russian Literature.

The development of literature in Russia since the early Biliny-period to the death of Gogol (1852). Special attention will be given throughout to the relations of Russian literature to social and political conditions, philosophy, and religion. Lectures and reading.

3 units, spring and *summer quarters (LANZ) MWF 11
spring, 27; summer, 17

C3. History of Russian Literature.

Continuation of C2. The modern Russian literature, covering the works of Turgenev, Goncharov, Dostoievsky, Tolstoy and others. Mutual dependence between Russia and West-European literatures will be particularly emphasized.

3 units, winter and summer quarters MWF 11
winter, 11

C4. Leo Tolstoy.—His life and work.

2 units, autumn and *summer quarters (LANZ) TTh 11
autumn, 10; summer, 16

C5. Theodore Dostoievsky.—His life and work.

2 units, winter and summer quarters TTh 11

SLAVIC LANGUAGES

A1. Elementary Russian.

It is the object of this course to put the students in possession of the elements of the Russian language. Beginning with a study of the alphabet it covers the course in morphology, syntax, simple conversation, and reading of the easy Russian texts (short stories of Leo Tolstoy). Bondar, Simplified Russian Method.

4 units, autumn quarter (LANZ) MTThF 8
autumn, 6

A2. Elementary Russian (continued).

The study of the aspects of the verbs and advanced practice in conversation and reading.

4 units, winter quarter (LANZ) MTThF 8
winter, 3

A3. Elementary Russian (continued).

Thorough review of grammar; reading and conversation (Bondar).

4 units, spring quarter (LANZ) MTThF 8
autumn, 1; spring, 3

A4. Commercial Russian.
The object of this course is merely practical; it is intended to put the students in possession of the commercial vocabulary and make them able to transact business in the Russian language. Special attention will be given to the composition of business letters. Prerequisites: Russian A1, A2, A3.
4 units, summer quarter (LANZ) MTThF 8
summer, 2

A5. Russian Conversation.—(For beginners.)
2 units, summer quarter (LANZ)
summer, 2

A6. Seminary Work.
Translation of documents in Mr. Hoover's collection.
(LANZ) By arrangement
winter, 1; spring, 3; summer, 2

A21. Second-Year Russian.
Reading of Pushkin and Turgenev. Practice in conversation and composition on the basis of the material read. Forbes, Russian Grammar.
3 units, autumn quarter (LANZ) MWF 9
autumn, 1

A22. Second-Year Russian.—Chekhov, Stories.
3 units, winter quarter (LANZ) MWF 9
winter, 1

A23. Second-Year Russian.—Reading of modern prose and poetry.
3 units, spring quarter (LANZ) MWF 9
spring, 1

A31. Third-Year Russian—Individual work.
3 units, autumn quarter (LANZ) By arrangement
autumn, 2

A32. Third-Year Russian.—Individual work.
3 units, winter quarter (LANZ) By arrangement
winter, 1

A33. Third-Year Russian.—Individual work.
3 units, spring quarter (LANZ) By arrangement
spring, 1

A6. Russian Conversation.
2 units (LANZ)
autumn, 10; winter, 3; spring, 3

ZOOLOGY

CHARLES HENRY GILBERT, HAROLD HEATH, GEORGE CLINTON PRICE, Professors.
WALTER KENRICK FISHER, JOHN OTTERBEIN SNYDER, Associate Professors.
EDWARD CHAPIN STARKS, Assistant Professor.

(Courses 1 and 4 may be undertaken without previous preparation in Zoology.)

1. General Zoology.

A laboratory course involving the study of representatives of the principal groups of animals, accompanied by lectures on their structure and classification, and on the general laws of biology which they illustrate.

5 units, autumn and *spring quarters (Starks, Heath); summer quarter at Hopkins Marine Station (Dr. C. V. Taylor)
autumn, 18; spring, 22

2. The Classification and Ecology of Marine Invertebrates.

The object of this course is to give the student the widest possible acquaintance with the animals which live along shore and in the plankton of Monterey Bay—their classification, associations, distribution, and habits.

5 units, summer quarter (Hopkins Marine Station, Pacific Grove) (Fisher)

4. The Vertebrates.

A general course in the classification of vertebrate animals, with studies in their habits and the geographical distribution of species. The course is largely devoted to birds. It includes field excursions and observations of live animals in the laboratory.

5 units, spring quarter (Snyder) MTWThF 1:15–3:45
spring, 17

5. The Invertebrates.

This course, following course 1, is designed to give the student a broader knowledge of the morphology and relationships of the more important invertebrate groups.

5 units, autumn quarter (Heath) MTWThF
autumn, 13

6. Invertebrate Embryology.

A study of segmentation, the formation of the germ layers, and certain phases of the later development, including the significance of larval forms and the relationships of principal phyla. Must be preceded by courses 1 and 5.

3 units, spring quarter (Heath)

7. Advanced Work on Invertebrates.

The original investigation of problems connected with anatomy and embryology of invertebrates.

3 to 5 units, autumn, winter, and spring quarters (Heath) By arrangement
autumn, 3; winter, 2

9. Research Work on Invertebrates.

Prosecution of special studies with reference to the classification, anatomy, and life history of invertebrates.

autumn, winter, spring, and summer quarters (at Hopkins Marine Station, Pacific Grove) (Fisher) By arrangement

10. Advanced Vertebrates.

Advanced studies in systematic vertebrate zoology, including practice in museum methods, in field observations, and in the collection and preparation of specimens with data. To be preceded by course 4.

3 to 5 units, spring quarter (Snyder, Heath) MTWThF
autumn, 1; spring, 4

11. Comparative Anatomy of the Vertebrates.

A detailed examination of vertebrate morphology, including dissection of representatives of the several classes of vertebrates, with comparative studies in vertebrate osteology, the nervous and circulatory systems. To be preceded by course 1.

5 units, autumn quarter (SNYDER); spring quarter (STARKS) MTWThF 1:15–4:15
autumn, 19; spring, 30

12. Mammalian Anatomy.

For students who have had course 11 or its equivalent. To be preceded by course 11.

3 to 5 units, autumn quarter (SNYDER) MTWThF 1:15–4:15
autumn, 5; spring, 4

13. Vertebrate Embryology.

The development of the chick through the first three days of incubation, and the later stages in the development of the mammal. To be preceded by course 1.

5 units, winter and spring quarters (PRICE) MTWThF
winter, 35; spring, 15

14. Advanced Vertebrate Embryology.

Open to students who have had course 13, or its equivalent.

autumn quarter (PRICE) Units and hours to be arranged
autumn, 6; spring, 3

15. History of Zoology.

A course of lectures dealing with the great discoveries in the science of Zoology, together with the lives of some of the more prominent zoologists. Open to students who have had 15 units of biological work. Two lectures weekly.

1 unit, autumn quarter (PRICE)
autumn, 15

16. Primitive Chordates.

Amphioxus, the tunicates, and the lampreys. Open to students who have had courses 11 and 13.

5 units, autumn quarter (STARKS) Forenoon hours by arrangement
winter, 7

17. Fishes.

An examination of the larger groups of fishes and practical work in the discrimination of species. To be preceded by course 16.

5 units, winter quarter (STARKS) Forenoon hours by arrangement
winter, 1

18. Advanced Ichthyology.

Special problems in the morphology and classification of fishes will be set for advanced students prepared for such work.

2 to 5 units, autumn, winter, and spring quarters (GILBERT, STARKS)
autumn (2 groups), 2, 1; spring, 2 By arrangement

19. Journal Club.

Open to seniors and graduate students.

4 units, winter quarter (GILBERT) By arrangement
winter, 7

Major students must before graduation complete courses 1, 2, 4, 5, 6, 11, 13, 16, 17, and 19, and course 1*a* or 1*b* in Entomology, and course 1a,

1b, or 1c in Botany. Substitution of other courses is permitted in special cases. Course 1, General Zoology, with at least one other five-unit course in Zoology is to be completed by major students in this department before their junior year.

Work for graduate and special students will be laid out in accordance with their individual needs and preferences.

Students who look forward to the study of medicine may take Zoology for their major subject and receive the A. B. degree at the close of a four years' course which shall also contain the first year in medicine. The following courses in Zoology will be required of such students: Zoology 1, 5 units; Invertebrate Morphology, 5 units; Comparative Anatomy of the Vertebrates, 5 units; Vertebrate Embryology, 5 units.

The Teacher's Recommendation.—The department recommendation for the High School Teacher's Certificate in Zoology requires the completion of the following courses: Zoology as a major; Zoology 1 (General), 5 units; 2 or 5 (Invertebrates), 5 units; 4 (Vertebrates), 5 units; 6 (Invertebrate Embryology), 3 units; 11 (Comparative Anatomy of Vertebrates), 5 units; 13 (Vertebrate Embryology), 5 units; Entomology 3 (Insect Ecology), 5 units. Total, 38 units.

Zoology as a minor: Zoology 1, 2, or 4, 5, 11; Entomology 3. Total, 25 units.

The Zoological Collections

The Zoological Museum contains a very full representation of the fishes of North America, and includes among others a valuable series of the deep-water fishes of the Pacific, and large collections from the West Indies, the Hawaiian Islands, Bering Sea, Japan, the coasts of Mexico and Central America, and the Galapágos Islands. The museum contains also a large representation of the reptiles, batrachians, birds, and mammals of California and adjoining States. The collection of marine invertebrates is rich in Pacific echinoderms and crustacea, and contains a good working nucleus in the other principal groups. The series of deep-sea forms is especially valuable.

Laboratory Fees.—$1 each quarter per unit of course.

ENTOMOLOGY

Rennie Wilbur Doane, Associate Professor.
Gordon Floyd Ferris, Mary Isabel McCracken, Assistant Professors.

1a. Elementary Entomology.
An introduction to the study of entomology intended to give the student a general knowledge of the structure, development, and classification of the more im-

portant orders of insects. Laboratory work with occasional lectures. Open to all students.

5 units, autumn, *spring, and *summer quarters (FERRIS) Forenoons
autumn, 8; winter, 12; summer, 12

1b. Elementary Entomology.

A continuation of course 1*a* and preferably but not necessarily preceded by it. Includes a study of the minor orders of insects. Open to all students.

5 units, winter and *summer quarters (FERRIS) Forenoons
winter (2 groups), 3, 2; summer, 2

2. Classification of Insects.

This course includes a study of insects in the field and the collection and classification of representatives of as many families as possible. The purpose of the course is to increase the student's knowledge of the insect fauna of this region and to acquaint him with the aims and the methods of systematic work. Must be preceded by course 1*a* or 1*b*.

5 units, spring and *summer quarters (MCCRACKEN, FERRIS) Forenoons
autumn, 3; spring, 9; summer, 1

3. Morphology.

Open to students who have had courses 1*a* and 1*b*, or their equivalent.

3 units, winter quarter (MCCRACKEN) MWF forenoons

4. General Entomology and Insect Adaptations.

A course of lectures and demonstrations. Open to all students.

2 units, autumn quarter (DOANE) Lec. TTh 9
autumn, 23

5. Insects and Disease.

A discussion of the insects that cause or disseminate some of the diseases in man and the domestic animals. Lectures and demonstrations. Open to students having some previous training in biology.

2 units, winter quarter (DOANE) TTh 9
winter, 48

6. Honey-bee and Apiculture.

Study of the honey-bee; its structure and activities and an introduction to practical bee-keeping through work in a small apiary. Students should consult instructor before registering in this course.

3 units, spring and *summer quarters (MCCRACKEN) TTh 9; TTh afternoons
spring, 15

7. Economic Entomology: Coccidae (the Scale Insects).

A study of the classification, general biology, and economic relations of the scale insects, with particular attention to the more important injurious ones of the Pacific Coast. Field, laboratory, and bibliographic work, with occasional lectures.

3 units, winter and *summer quarter (DOANE, FERRIS) MWF afternoons
winter, 2; summer, 1

8. Technique.

A course primarily in elementary histological technique and including a limited study of the fundamental tissues, intended especially for Entomology and Zoology majors. Open to all students.

2 to 5 units, autumn, *winter, and *summer quarters (FERRIS)
autumn, 7; winter, 8; summer, 10 By arrangement

9. Economic Entomology: Forest Insects.
A study of the insect enemies of forest and shade trees. The course includes field, laboratory, and bibliographic work. Should be preceded by course 7.
3 units, autumn quarter (DOANE) MWF afternoons

10. Economic Entomology: Orchard and Garden Insects.
A study of the principal injurious and beneficial insects of the orchard and garden. Includes field, laboratory, and bibliographic work, and occasional lectures. Should be preceded by course 7.
3 units, spring quarter (DOANE) MWF afternoons
spring, 5

11. Economic Entomology: Principles and Practice.
A course of lectures relating to the development of economic entomology, and the methods of controlling some of the more important insect pests.
2 units, spring quarter (DOANE) [Not given in 1921–22]

12. Principles of Nomenclature.
A series of lectures dealing with the principles of biological nomenclature and intended to meet the needs of students from any of the biological departments.
1 unit, spring quarter (FERRIS) [Not given in 1921–22]

13. Advanced Entomology.
Open only to upperclassmen who are prepared to do advanced economic, systematic, or biologic work. Laboratory and field work.
autumn, winter, spring, and summer quarters (DOANE, MCCRACKEN, FERRIS) By arrangement
autumn (2 groups), 4, 4; winter (2 groups), 4, 4; spring (2 groups), 4, 4; summer, 1

14. Research.—Primarily for graduate students.
autumn, winter, spring, and summer quarters (DOANE, MCCRACKEN, FERRIS) By arrangement
autumn, 5; spring, 2

15. Animal Genetics.
Discussion and demonstrations of the principles of heredity underlying modern practices in improvement of animals. (Not open to first- or second-year students.)
2 units, winter quarter (MCCRACKEN) Lec. TTh 11
winter, 1

16. Seminar in Genetics.
Open to senior and graduate students.
2 units, autumn, winter, and spring quarters (MCCRACKEN) By arrangement

17. Bionomics: Organic Evolution.
2 units, winter quarter (DOANE) Lec. TTh 11
winter, 161

Major students in Entomology must obtain before graduation forty-five units of credit in Entomology and credit for course 1 in Zoology, and course 1 in Botany.

The ENTOMOLOGICAL COLLECTIONS contain authoritatively determined specimens, accessible for comparison, in all of the insect orders, and include many sets of specimens illustrating the development and habits

of insects. There is included, also, the most important existing collection of North America Mallophaga, comprising the types of four-fifths of all the species so far described from North America and the Pacific Islands, large collections of other parasitic insects, one of the largest collections of Coccidae (scale insects) in North America, and valuable series of specimens from the Galapágos Islands, Samoa, and the Philippine Islands.

Laboratory Fees.—$3.50 for course 8; $2.50 per quarter for other laboratory courses.

LECTURES AND DEBATES

RAYMOND FRED WEST MEMORIAL LECTURES

In 1910 Mr. and Mrs. Fred West, of Seattle, Washington, presented to the University, in memory of their son, Raymond Fred West, a student of the University who died before the completion of his college course, the sum of ten thousand dollars, to be held as a fund in perpetual trust, for the establishment of a lectureship on a plan similar to the Dudleian Lectures at Harvard University.

"It is our wish that such lectures shall not form part of the usual college or university course, nor shall they be delivered by any professor or instructor in active service in the institution. Such lecturer may be a clergyman or a layman, a member of any ecclesiastical organization, or of none, but he should be a man of the highest personal character and of superior intellectual endowment. He shall be chosen by the Faculty and the Board of Trustees of said University in such manner as the said Board of Trustees may determine, but the appointment in any case shall be made at least six months before the delivery of said lectures. . . 'The course of lectures shall be known as the "Raymond Fred West Memorial Lectures on Immortality, Human Conduct, and Human Destiny".'"

The following general plan has been adopted by the University: The lectures are to be delivered in alternate years; the lecturer is to give at least three lectures; the lectures are to be published in book form within two years after delivery, the lecturer to have the option of publishing them himself, in which case the University will purchase a hundred copies, or of having the University publish them, in which case it will retain the copyright (in any case the manuscript of the lecturer is to be filed in the University archives); the honorarium to be decided in each case by the Board of Trustees, and unless otherwise ordered the entire earnings of the fund for the two years to be devoted to honorariums and to the purpose of publication; the lecturer is to be nominated by the President with the approval of the Advisory Board and the consent and ratification of the Board of Trustees.

The seventh series of lectures was delivered by Professor Irving Babbitt Taylor, of New York City, April 18, 19, 20, 21, 1922. The general subject of the series was "The Ethical Basis of Democracy."

STANFORD-CALIFORNIA DEBATE

An Intercollegiate Debate, under the auspices of the Associated Students of the University of California and of Stanford University, is held during the autumn of each year. In 1921–22 the debate took place on December 2d in the Assembly Hall, Stanford University.

The question for discussion was: "Resolved, that Congress should enact a law exempting American coastwise shipping from the payment of Panama Canal tolls." The contestants were Richard Leos Jenkins, '25, Knox Miller, '24, and Mathew Tobriner, '24, of Stanford; Howard Bohnet, '21, Arthur Murphy, '23, and Olive Presler, '22, of the University of California.

The judges were Father H. Ayrinac of St. Patrick's Seminary, Archbishop Edward J. Hanna, and Attorney Percy V. Long, of San Francisco. The debate was won by the University of California.

JOFFRE DEBATE

The Medaille Joffre, presented by the Baron de Coubertin, for the purpose of encouraging the study and discussion, in California, of French history and politics, is awarded to the student who, in the opinion of the judges, proves himself the best debater in a contest held for that purpose between Stanford University and the University of California.

Under the rules of the contest the general subject for discussion in 1921–22, "France's Attitude at the Washington Conference," was made known in January, 1922. The debate was held on the evening of April 14, 1922, at the University of California. The particular phase of the question discussed was announced to the debaters two hours before the time set for the debate. The question was, "Resolved, that France was justified in her stand on the submarine issue at the Washington Conference." Stanford University was represented by Robert Cedric Binkley, '22, Bertrand Lewis Comparet, '24, Knox Miller, '24; the University of California, by Howard Bohnet, '21, H. M. Caldwell, '23, and Sam W. Gardiner, '23. The Judges were Rev. C. S. Dutton and Attorney Frank Cornish, of San Francisco, and Professor J. W. Scott, of Oxford University. The medal was awarded to Knox Miller of Stanford University.

STANFORD-WASHINGTON-OREGON DEBATE

Debates with the Universities of Washington and Oregon are held under the auspices of the Pacific Coast Debating League, composed of Stanford University, the University of Washington, and the Uni-

versity of Oregon. Each institution is represented by two teams of two men each. The teams debate the affirmative and the negative of the same question, which is chosen by the intercollegiate debating committees of the three institutions. The team remaining at home debates the affirmative of the question while the visiting team supports the negative. In 1921–22 Stanford was represented at the University of Washington by Bertrand Lewis Comparet, '24, and Leland Ghent Stanford, '24; at Stanford University, in debate with representatives of the University of Oregon, by Harold Altman Fendler, '22, and Edward Durley Landels, '23. The question was, "Resolved, that Congress should levy a tax on Manufacturers' Sales, the term manufacturers' sales to be defined as on page 19, volume 8, of the United States Census for 1912." The debates were won by Washington and Oregon respectively.

NORTH PACIFIC ORATORICAL CONTEST

The first North Pacific Oratorical Contest was held at Pullman, Washington, on the evening of May 13. Speakers from several colleges and universities of the Pacific Coast took part in the contest. Stanford University was represented by Edward Durley Landels, '23, who spoke on the subject, "A Plea for Sanity in Intercollegiate Athletics." The first prize of seventy-five dollars was awarded to Mr. Landels.

MUSEUM AND ART GALLERY

LELAND STANFORD JUNIOR MUSEUM

PEDRO J. LEMOS, Director.

In 1880, Leland Stanford Junior, then eleven years of age, accompanied his parents on a trip through Europe, and collected numerous mementos of the places visited. In 1883, on a second visit, he began to pursue this object more ambitiously, and finally with the idea of establishing a museum. The Leland Stanford Junior Museum was designed by Mrs. Stanford as a memorial to perpetuate this idea, and the various collections are mainly her gift to the Museum.

The collection made by Leland Stanford Junior between 1880 and 1884 has been placed in two rooms, and in one room his own arrangement is reproduced in detail. In the room adjoining are found mementos of his early life. These two rooms contain especially Egyptian bronzes, Tanagra figurines, Greek and Roman glass, armor, mosaics, Sèvres and Dresden ware, and the like.

The Stanford Memorial Room contains collections of personal belongings pertaining to the founders of the University. Added to these are collections connected with the early days of the University, views of buildings in construction, and details of the mosaics used in the Memorial Church.

The vestibule and upper corridor are devoted principally to copies of the old masters.

The Di Cesnola Collection contains five thousand pieces of Greek and Roman pottery and glass from the Island of Cyprus.

Another room contains the famous historical relic, *The Governor Stanford,* the first locomotive used on the Central Pacific Railroad, in 1864.

The American Collection is made up of mound relics, Indian baskets, Acoma ware, utensils, Alaskan canoes, totem poles, etc. In this room is also a display of material of the stone age purchased by Mrs. Stanford in Denmark. The center case in this room contains practically all the implements extant of the old Mission Dolores, presented by Don Pablo Vasquez, whose father was the last major-domo of the Mission. Included in the Mission collection are some extremely rare relics of Father Junipero Serra and the Carmel and Santa Barbara Missions.

The Ikeda Chinese and Japanese collection, purchased by Mrs. Stanford in 1904, comprises rare art material from the Orient.

In the Chinese and Japanese room there is exhibited a collection of

bronzes, arms, china, lacquer, cabinets, musical instruments, rich embroideries, and specimens of wood-carving, including the Imperial bedroom set, a marvel in wood-carving and inlaid work; also the famous de Long Collection of Japanese rarities.

The Japanese collection, purchased by Mrs. Stanford in 1902, consists of cloisonné, Satsuma, porcelain, embroideries, Buddhistic images and ivory carvings, and includes a large bronze Koro, over 150 years old. The Corean collection, the gift of Mr. Timothy Hopkins, contains costumes, household goods, cabinets, screens, etc.

One room contains the Anna Lathrop Hewes Collection of paintings, statuary, mosaic, etc. Ceramics collected by Mrs. Stanford include Sévres, Dresden, Royal Berlin, Persian, Pompadour crystal, Bohemian, and numerous other wares.

An adjoining room contains the collection of Venetian glassware, mirrors and mosaic art pieces, presented by Messrs. Salviati & Camerino, of Venice, Italy, and comprising almost every conceivable pattern.

The mosaic exhibit, which was made with the personal coöperation of Mr. Zampatto, shows the structural evolution of mosaic from the fusing of the glass to various finished pieces.

THOMAS WELTON STANFORD ART GALLERY

PEDRO J. LEMOS, Director.

The THOMAS WELTON STANFORD ART GALLERY is composed of four galleries designed for the exhibition of paintings and other works of art.

In the main galleries the collection of paintings donated by Thomas Welton Stanford is placed. Among these are pictures by Minderhout Hobbema, James Giles, R.S.A.; John Frederick Herring, Lienur, Van der Houten, Francis Snyders, W. J. Laidley, David Bates, John Yarley, Juliun M. Price, J. W. Ready, William Melby, James E. Meadows, Elijah Walton, F. G. S.; W. Henry, W. Koek-Koek, E. Wake Cook, T. R. Miles, Sr., John Glover, Herr Schnars-Alquist, Louis Buvelot, William Hart, William Shiels, R. S. A.; S. Bird, Patrick Nasmyth, Emil Bayard, Gerard Lairesse, C. Wimmer, Salvator Rosa, G. Koken, John Weenix, Bachman, Kobell, Jr., Charles Stuart, Heinrich Rasch, Melchoir Hondecooter, Marie Angelica Kaufman, Ten Kate, George Earl, Guardabassi, E. G. Lewis, and E. C. Curtiss.

The rear gallery has been planned for the exhibition of collections of paintings, etchings, and sculpture from eastern and foreign art centers. These exhibitions are announced from time to time as they are received.

DEGREES CONFERRED

([1]October 7, 1921; [2]January 6, 1922; [3]April 7, 1922; June 19, 1922)

BACHELOR OF ARTS

(For the year 1921-22 graduation with honors was open only to those receiving degrees in October and January.)

BACTERIOLOGY AND EXPERIMENTAL PATHOLOGY

[1]Doris Evelyn Anderson
Francisco Leopoldo Gonzales
[1]Frank Allan MacDonald

BOTANY

[3]Ynez Marie Henderson
Mary Edith Lang
[3]Herbert Louis Mason
[3]Nga Yau Yue

CHEMISTRY

[3]Sylvian Baer
[2]Hugo Herman Becker
[3]Milo Alfred Bird
[3]Roger Ellsworth Blackburn
With distinction
Vance Maechem Brown
[2]William Sayre Cary
Gumdock Chan
[3]Erle LeRoy Collins
[3]William Clifford Cooke
[2]Wallace Alexander Craig
Florencio Cortina Dominguez
[2]Charles Drabkin
[3]Wallace Alfred Gilkey
Henry Thomas Graham
[3]Ray Leroy Hamilton
Elinor Walker Hill
With great distinction
[3]Alfred Leonard Holven
[1]Oliver Wolcott Johnson
Guy Peter Jones
[1]Verne Langford
Irving Brooks Larson
Ruth Dorinda Toldervey Lee
Homer Edmund Likely
[3]Arthur Dean Livingston
Anna Mildred Lopin
Dell Theodore Lundquist
With distinction
[3]Andrew Mercer
[1]Paul Marcus Pfeiffer Merner
[2]Russyl Ellwood Miller
Russell Holbrook Mills
Oscar Mathias Ferdinand Nelson
With distinction
[2]Walter Jerome Nelson
[3]Carl David Palm
Allen A. Patterson
[1]Harold Walter Reid Perkins
Glicerio Tejam Pison
Carl William Rehfuss
[3]Paul Ferdinand Roosman
[2]Virginia Sargent
Lawrence Roland Serrurier
With distinction
[1]Mark Sherman
Francis Albert Smith
With distinction
Bert Price Stern
[1]Duncan Stewart
Homer Pearson Struble
With great distinction

Willard Edmond Sullivan
With great distinction
Quimby Whitley Taylor
Richard Thurston Taylor
Chester Arthur Thorp
Ross G. Van Gundy
[1]Florence Oliver Whittier
Gerard George Wilson
Henry Phillip Zeh

CLASSICAL LITERATURE

[3]Mary Lida Cornes
With distinction
Mildred Margaret Estus
Ruth Mabel Morris
Hallie Watters
With great distinction

ECONOMICS

[1]William Bryan Adams
Arthur Francis Allen
Carnot Richardson Allen
With distinction
[3]Raymond Earl Allen
Raymond Jackson Allen
[3]Henry Stow Anderson
[1]Willis Earl Canute Anderson
Donald Elliot Anthony
Imogen Aten
[1]Carl Rutherford Austin
Carey Gwyn Bailard
Walter Edwards Beach
With great distinction
[1]Frances Collette Blewett
[3]Richard Edson Blood
[2]Muriel Joy Bothwell
[1]Evelyn Frances Brown
Robert Gage Burmister
[3]Helen Burntrager
With great distinction
[1]Ralph Langhenry Carver
[1]Norman Blanchard Chaney
Mary Katherine Chase
With great distinction
[2]Ah Fong Chuck
Marion Alice Clancy
With distinction
Connell Clifford
With great distinction
[1]Max R. Cochrell
John Walter Cohen, Jr.
John Wiley Coplen
Herbert James Cornish, Jr.
Dorothy Cramer
With distinction
Katherine Lee Crosby
[2]Earle Edward Crowe
[2]Eugene Alden Curtis
Grace Pearl Cuthbertson
[2]Frederick Eugene Darke
Robert Earle Dawes
Roy Henry Deben
Lois Eldredge
William Cary Evans
[3]James Brown Fablinger
[3]David Ernest Faville
With great distinction
Fred Gerichs Fehren
Ross Clark Fisher
[3]Bernard Joseph Frankenheimer
[3]Thomas Arthur Gallagher
Priscilla Ash Garvin
[2]Elon Edward Gerken
Lowell Woodruff Gerson
Abram Hirsch Goldstone
[3]Howard F. Gould
Marjorie Ethel Morrison Grant
Clarence Rolland Gray
[3]Harold Park Griffin
[3]Willard Clare Griffith
Clyde Elton Gunter
With distinction
[2]Clarisse Ruth Haberfelde

Edmund Carl Haberfelde
[2]Bernard Francis Haley
John Flint Hanner
[3]Dorothy Hare
Edna Hawkenson
[2]Erle Edward Hellwig
[2]Gaylord William Hensold
Mary Virginia Hoffman
With distinction
[3]James Edwin Hollingsworth
Alden Walton Holmes
Velma Aileen Hopper
Arthur Walton Horn
[2]Margaret Howard
Harry Coffin Hubbs
With distinction
Frank Toru Ishii
[2]Christopher Martin Jenks
[3]Glenn Walter Johnson
Anna Frances Judge
[1]Dorothy Lucile Krisher
[2]Aline Rose Larimer
[1]Win Fred Lee
[3]Everett Stanton Litchfield
Mary Elizabeth Lowstetter
[1]Dwight Ferguson McCormack
Eugene McCormick
[1]Frederika Prohl McGee
Douglas David McKinnon
Wanda Mabel McMurtry
Helen Meta McQuoid
[2]Myron Wheelock Mead
Duard Orvan Meeken
Elgie Elspeth Miller
[2]Elliot Steele Miner
Wallace Moir
Charles Henry Morrow
Merrill Constant Morshead
[3]Jacie Neer
Yaichiro Ogata
[3]Donovan Elliot Palmer
Richard Scull Pershing
Hilbert William Peterson
[1]Joseph Leslie Phillips, Jr.
Shelly Nathan Pierce
[3]Elmer Webster Plaskett
Robert Reynolds Porter
Katherine Reid
Carroll Leland Richmond
Reuben Nathaniel Ringdahl
Helen Schuster
Miriam Seelig
With great distinction
Lester Leo Seib
William Charles Edward Shiels
Frederic Thomas Shipp
Robert Shlaudeman
John Thornton Sibley
[3]George Westall Sloan
Charles Gordon Smith
Phoebe Marcella Smith
Ruth Isabel Spaulding
[3]Stanley Archie Steindorf
Doris Maude Stevenson
[3]Robert Henry Stice
[2]James Leonard Sturgeon
Gladys Grace Swacker
Albert William Taylor
[2]Walker Samuel Teeson
John Harvey Turk
Sidney S. Uebele
Edwin Holloway Vail
With distinction
George Mansfield Walker
[2]Addison Wheelock Warner
Elwyn Jerome Webster
Ralph Jacob Weiler
Lloyd Henry Weisel
Horace Winfred Beek White
Mary Frances Wildman
With great distinction
Helen Edith Williams
[3]Lester Wohlberg
[1]Harry Wilson Wyckoff

EDUCATION

[1]Orlo Rexford Chamberlain
[1]Mary Alice Cronin
[1]Eleanor Victoria Gratz
Christopher John Griffin
Andrew Putnam Hill, Jr.
Jessie Creager Kelly
[2]William Marion Vernal Klipsch
[1]Gertrude Laws
Ida Mary Margaret Lima
[3]Thomas William MacQuarrie
With distinction
[3]Herbert Popenoe
[1]Roy Jay Pryor
[1]Cora Annette Ripley
M. Alexander Rogers
Josephine Osmond Simmons

EDUCATION: Graphic Art

[1]Martha Lucile Allen
Dorothea Miller Clark
Janice Annette Dunker
[1]Margaret Nagel
Evelyn Petrene Olsen
Marguerite Tedford

SCHOOL OF EDUCATION

Bruce Proctor Clark

ENGINEERING

Civil Engineering

Walter Leonard Bills
Fred Coffman
With distinction
[3]Charles William Dewing
[3]Urban Burns Gilroy
Charles Andrew Harper
Samuel Ewing Hays
[3]Ronald Wayland Heath
Roy Irving Hill
William Harvey Howe
Frederic Jordan McConnel
With distinction
Cecil Edward Pearce
Laurance William Phelps
Hugh Allan Shamberger
John Van Voorhies Spielman
Robert Clifford Stevenson
Alexander Thain
Walter Samuel Wassum
Walter William Wegner
With great distinction
John George Wernli
[3]John Howard Wilke
Hiram Ferris Wooster

Mechanical Engineering

Edwin Kennith Baum
James Bean
Hugo Ernest Becker
Edwin Mitchell Blakeslee
With distinction
Leland Hermon Brown
George Stuart Clark
Robert Cottman Connolly
Florencio M. Cota
Hueston William Dagg
Paul Herbert Davis
Charles Alden Ellis
Walter King Franklin
Henry Elmer Geyer
With great distinction
William Harrington Gorman
[2]Richard Homer Hartman
Arthur Herbert Herndon
With distinction

Earl Justin Hoxsie
Carroll Delmar Hudson
Fred Blydenburgh Hunie
[2]Jorge Alves de Lima
Marcello Prado Mendonça
[3]Charles Emerson Miller
With distinction
Horace Emerson Overacker
George Harold Payne
Oser Franklin Price
[3]Jere W. Robinson, Jr.
Angelo F. Semino
With great distinction
Elton Sutherland Shaw
Edwin Warren Small
Abby Joy Snow
With distinction
William C. Stevenson
David Eugene Tell
Roland David Tisné
William Valentine West
Alan Haynes Williams
Russell Berkeley Wright

ENGLISH

Rita Adelaide Allegrini
[3]Dorothy Hoskins Allen
Richard Hindry Barker
With great distinction
Olive Anthonette Brooking
[1]Bessie Harlow Burks
Mildred Verele Cornell
Alice Louisa Dement
Rosemary Drachman
With distinction
[1]Theodora G. Emmerson
[1]Emily Esther Fearney
William Eugene Fenimore
Harriet Gormley
Helen Cree Hauge
Faye Josephine Hunt
[1]William Woodman Huse, Jr.
[2]Warren Frederic Lewis
Cathrine America Moore
With distinction
[1]Raymond Wheatley Moore
[2]Elizabeth Leigh Moultrie
[2]Lamar Foutaine Phyfer
Marion Bucklin Potter
Dorothy Quigly
[1]Dorothy Cecelia Schilling
Sergey Sergeyevitch Sergeyeff
Madeleine Soulé
Katharine Elizabeth Taff
[1]Marjorie Ferguson Wells
[3]Mildred In de Betou Wells
Blanche Young

ENGLISH: JOURNALISM

Allen Hastings Andrews
Thomas Reynolds Carskadon
With great distinction
Paul Roy Castleman
Mary Jane Clark
[3]Sinclair George Trimble
Bertha Vaughan

GEOLOGY

[3]Harry William Abrams
Harry Aid
[2]Lloyd Lees Aubert
[2]Thomas E. Bassett
[2]Glenn Howard Bowes
[3]Douglas Bundy
Charles Clair Burbridge
[2]Austin Cadle
[2]David Lynam Caldwell
Carlton Mann Carson

Gordon Leonard Castleman
[2]Willard John Classen
[3]Dave Solis Cohn
[3]George Ainslie Collins
William Sears Comstock
[3]Grant White Corby
Lorin Alvin Cranson
Loran Andrew Creglow
Edmund Anthony Culkin
Guy Draper
[3]Philip Taylor Duryea
Harry Arthur Ells
[2]Edward Prior Filley
[1]James Cornelius Gilbert
Richard Charles Harris
Ashley Stanford Holston
[3]Cecil Noble Housh
[2]William Earlin Huff
[1]Malcolm Brus Kildale
[2]George Livingston Knox
Joseph Urban Larsen
[2]Leonard Cottrell Lundquist
[3]Hugh Wallace McClellan
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Charles White Merrill
[1]Joseph Ernest Morero
Frithjof William Nelson
[2]John Branner Newsom
Eugene Robinson Paul
Lisle Wainwright Reinhold
[1]Merle Marion Repass
[3]Alvin Alphonse Sentous
Richard Wade Sherman
Joseph Henry Show
Joseph Theodore Silveira
Rouse Simmons
[2]Lewis Anderson Smith
Walter Bonnard Snook
[3]Robert Joshua Spiers
[2]Thomas Franklin Stipp
[1]John Sidney Strauss
Stender Joseph Sweeney
[3]William Ward Tamplin
[1]Takuso Tsubakida
[1]Harold Maxwell Van Clief
[1]Donald Kessler Weaver
[2]Gerald Carl Worthington
[2]Kenneth A. Wright
[1]Solis Myron Zandmer

HISTORY

Herbert Bloom Alexander
With distinction
[3]Harriett Glines Barnhart
Robert Cedric Binkley
With great distinction
[1]Floyd Paul Campbell
Stuart Randall Carswell
Mark Madison Cohen
With distinction
Ray Theodore Cowell
[1]Mary Eva Wood Crowe
Ruth Temple Davis
[1]Wallace Merle Davis
[2]Margaret Mary Enright
[3]Goss Silas Grable
Helen Eloise Horton
Russell Rueben Johnston
Gertrude Jennie Joseph
Elizabeth Lacombe
With distinction
[2]Elsie Allen Leicester
Virginia Belle Lowers
With distinction
[3]Lois Evangeline McClung
Mary Hersey Mathews
George Mark Papazian
Helen Elizabeth Payne
Wallace Edmunds Rankin
[3]Dorothy Smith
[3]Georgia Thompson
Robert Lewis Wiel
Margaret Jean Younglove

HISTORY: JOURNALISM

Marion Norwood Echols
With distinction

MATHEMATICS

Marion Lorna Dwight
Marian Lomax.
With great distinction
Marion Virginia Mauzy
Ruth Louisa Meissner
Catherine Jennie Robbins
With distinction
Helena Van de Carr
[3]Myra Whitney Waterman
With distinction

PHILOSOPHY

Thomas Edward Gibbon, Jr.
Morris Marshall Kirksey

PHYSIOLOGY

[3]William John Allexsaht
Louis Baltimore
Augustus Canfield Beattie
Millard Samuel Rosenblatt
With great distinction
[1]Maurice Lane Tainter
Blake Colburn Wilbur
With great distinction
[3]Shirley Douglas Wimmer

POLITICAL SCIENCE

[1]Robert Henry Armstrong
Winthrop Woodworth Davis
Clarence Roy Evenson
[1]Amelia Louise Hedges
Harold Edward McCombie
Dewey Loyal Strickler

PRE-CLINICAL SCIENCES

[1]Harry Christie Aitken
Leonard Bryan Barnard
[2]Ernest Lloyd Botts
Robert Bulman
George Fairchild Calvin
Margaret Estelle Carlsmith
[1]Albert Kalem Chorbajian
[2]William Leroy Garth
[1]Franklin Harold Gobar
Victor Ernest Hall
With distinction
[3]Harold Pierpont Hamilton
Philip John Harris
Matthew Emery Hazeltine
[1]James Gordon Henderson
[1]Robert Elwyn Hughes
Carl Edward Johnson
Vernon Fowler Kennedy
[1]Paul Burt Kinney
Frederick Henry Krock
[3]Francis Randolph McCrea
[2]Arthur Carol McKenney, Jr.
Chester Marsh
Oscar Chauncey Marshall
Samuel Salisbury Mathews
Rodolfo Eugene Monaco
[3]Shigeichi Okami
Benjamin H. Page
[3]Fred Alexander Polesky
Margaret Mitchell Robertson
Emmett Earl Sappington
Raymond Robert Scott
With distinction
Cletus Stephen Sullivan.
[1]Thomas Leonard Sutton
[1]Thomas Bertram Williams

PRE-LEGAL CURRICULUM

[3]Forrest Arthur Betts
O. Jack Boucher
Abraham Haggberg Brazil
[1]Carleton Felton Bryan
George Woodward Burch, Jr.
[3]Beatrice Caughey
[1]Edgar Reginald Caughey
George Isadore Devor
[1]Robert Sample Driver
[2]Harlan Hebe Dykes
[3]Harold Altman Fendler
[3]Donald Kelly Ferguson
[3]Hugh Thompson Fullerton
Joseph Vincent Gomes
Daniel Louis Goodman
With great distinction
Harris Howard Hamlin
[1]Lauder Watson Hodges
Beecher F. Hungerford
[1]Wendell Harcourt Kinney
[1]Reginald Short Laughlin
Harry Edgar Lindersmith
With distinction
Thomas Edward McDonald
With distinction
Julius Mackson
[2]Laurence Butler Martin
Homer Irving Mitchell
With distinction
[3]Merton Keith Monroe
Raymond Covert Murphy
Frances Elizabeth Sheldon
With distinction
Elizabeth Brewer Spilman
With distinction
[2]David Tannenbaum
[1]Robert Lyman Templeton
[1]Frank Seymour Turner
Charles Rucker Wayland
Leslie Edwin Wilson
[3]Heaton Luse Wrenn

PSYCHOLOGY

Charles Stark Draper
[1]Bernard C. J. Corr Jones
Ruth Anna Langer
With distinction
Grace Shaw Pope
Hudson Milton Proctor
[3]William Henry Vosburgh

ROMANIC LANGUAGES

[3]Willa Ashley
Frederick William Bachman
Roberta Marie Barton
Geraldine Billings
[1]Ruth Teresa Bormose
[2]Mary Edna Campbell
Edvige Mary Cerruti
[3]Alice Louise Dennison
Truman Lawrence Donoho
Josephine Lorene Downs
Isabel Dorothy Elfving
With distinction
Charlotte Marian Glenn
With distinction
Hazel Dene Goldberg
Virginia Rey Grannis
Halfdan Ingstrup Gregersen
Paul Veillat Herkman
Myrtle Olive Klahn
James Van Buren Lawyer
[1]Virginia Moreno
Vera Lillian Pernau
[3]Ruth Lolita Steinmetz
Mildred Walter
Frances Baldwin Ward
[1]Hilda Maebelle Wright

ZOOLOGY

Leland Alonzo Childers
[1]Marjory Gibb Ford
Harlan Banta Holmes
Haig Mitchell Hosepian
[1]Dorothy Marston
[1]Raoul Michel May
[2]Gertrude Lucille Miller
Wallace Jenks Miller
Oscar Elton Sette
With distinction
Mary Caldwell Sloan
With distinction
[1]Florencio Frias Talavera

ZOOLOGY: Entomology

[1]Persis Hyatt
[2]John Clarence Patrick
[3]Raymond Benton Pitts

BACHELOR OF LAWS

[1]Rae Best Carter, A. B.
[3]Aaron Norman Cohen
Daniel Webster Evans
James Petrini, A. B.
Russell Williams Sewall
[1]Coleman Everett Stewart, A. B.

MASTER OF ARTS

BOTANY

Robert Vernon Bradshaw, B. A.
University of Oregon

Hester Ruth Davis, A. B.

CHEMISTRY

[2]Lawrence Harvey Cook, A. B.

[1]Milan Wayne Garrett, A. B.

[3]Thomas Patrician Hughes, A. B.

[1]Alanson Wood McDermoth, A. B.

[1]Hazel Wood Severy, A. B.

CLASSICAL LITERATURE

Rose Gertrude Allegrini, A. B.

Francis James McConville, A. B.
Seton Hall College

Josephine Moore, A. B.
University of Chicago

[3]Blanche Gertrude Sullivan, A. B.
University of California

Araxie Arpie Vartanian, A. B.

ECONOMICS

Dorothy Lucile Krisher, A. B.

Leonila Marie Lloyd, A. B.
George Washington University

John Barton Seymour, A. M.
Hamilton College

SCHOOL OF EDUCATION

Romona Kathleen Eckern, B. A.
Reed College

EDUCATION

[1]Arnold Clarence Argo, B. S.
University of Washington

Melvin Edward Bowman, B. S.
Kansas State Normal School

Karl Montague Cowdery, A. B.
Oberlin College

Charles E. Eichelberger, B. S.
University of Idaho

[1]Jessie Chase Fenton, A. B.

[1]Walter Frederick Hellbaum, A. B.

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Knox College

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Washington State College

[2]Raymond R. Hutchings, A. B.
Indiana University

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Washburn College

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Vassar College

Lou Kennedy, B. A.
University of Iowa

[3]George V. Lantzeff
University of Petrograd

L. Marguerite Lauer, A. B.
Wellesley College

George Irving Linn, A. B.

Earl Orvis McCormick, B. S.
Iowa College

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Harvard University

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[1]Irvel Myers, A. B.
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Simon Peter Nanninga, B. S.
Kansas State Normal School
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Pomona College
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University of Utah
Ingram Fordyce Stewart, B. S.
Ohio University
[3]Elzo L. Van Dellen, A. M.
University of Denver
Helen McPherson Ward, A. B.
William Roscoe West, A. B.
Colorado State Teachers' College

ENGLISH

William Ashworth, A. B.
Dartmouth College
Frances Elvira Baumert, A. B.
Kansas Wesleyan University
Helen Douglas Campbell, A. B.
University of California
Beryl Bishop Collett, A. B.
Greenville College
Harvey Alexander Eagleson, A. B.
Reed College
[1]William Clarence Maxwell, A. B.
[1]Laura Elizabeth Simpson, B. S.
Carleton College
Clarence Eldon Walton, A. B.
Bates College
[1]Edith Armstrong Wray, A. B.
DePauw University

ENTOMOLOGY

Persis Hyatt, A. B.

GEOLOGY

Leopoldo Alcaraz Faustino, B. E.
Ohio State University
Andrew Nicholls Mackenzie, A. B.
Robin Willis, A. B.

GERMANIC LANGUAGES

Grace Martha Swithenbank, A. B.

HISTORY

Helena May Dolfin, A. B.
College of the Pacific
Oscar Julius Falnes, A. B.
St. Olaf College
Charles Roger Hicks, A. B.
Clark College
Esther Ruth Miller, A. B.
Pomona College
Shizuma Nara, A. B.
Waseda University
Ruth Arlene Olson, A. B.
John Perry Pritchett, A. B.
[3]Luis José de Souza, A. B.

MATHEMATICS

Whittier Worthington Wallace, A. B.

PHYSIOLOGY

Harold Light Averill, A. B.

Edith Edwina Pasmore, A. B.
University of California

ROMANIC LANGUAGES

Eugenio De Luca

Helen Eugenia Haist, A. B.

Helene Marie Hall, A. B.

[1]Ivan Rush Messenger, A. B.

[2]Katharine Page, A. B.
Vassar College

Gertrude Marian Peters, A. B.

[1]Ernest Hall Templin, A. B.

[2]Marguerite Caroline Waite, A. B.
Pomona College

SURGERY

[1]René Pollart

ENGINEER

CHEMICAL ENGINEERING

[1]William Richmond Barber, A. B.

[2]Earle Frank Demond, A. B.

Edgar Louvau Harker, A. B.

Kamehachi Thomas Iseri, A. B.

Samuel Stephens Kistler, A. B.

Paul Marcus Pfeiffer Merner, A.B.

Richard Aga Montague, A. B.

[1]Harvey Edward Newland, A. B.

[1]Mason Marion Rhodes, A. B.

Marshall Keene Rouse, A. B.

[3]Charles Ward Starkey, A. B.

Duncan Stewart, A. B.

CIVIL ENGINEERING

[1]Jerome Kaseberg Doolan, A. B.

ELECTRICAL ENGINEERING

Eugene François D'Hooghe, E. E.
University of Liége

Domenick Paul Dinapoli, A. B.

Shungo Furui, A. B.

Arthur George James, A. B.

Percival Elliot Loye, B. S.
University of Minnesota

Vernon M. Marquis, A. B.

Frederick Emmons Terman, A. B.

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Arthur Lionel Williams, A. B.

MECHANICAL ENGINEERING

Frank Oakes Ellenwood, A. B.
Floyd Loren Kallam, A. B.
Guido Van Dusen Marx, A. B.
[1]Donald Frederick Purdy, A. B.
Fred Gordon Roberts, A. B.
Sadaji Utahara, A. B.
[1]John Frederic Wilcox, A. B.

MINING AND METALLURGY

[3]Harold Valby Dodd, A. B.
James Douglas McPherson, A. B.
[2]John Alfred Potter, Jr., A. B.
[2]Julien Raick, E. M.
University of Liége
Rowland Gardiner Whealton, A.B.

JURIS DOCTOR

[3]Niel Richardson Allen, A. B.
Guard Clement Darrah, A. B.
Perry Emerson Hardwick, A. B.
University of California
Arthur Jerome Harzfeld, A. B.
Hamer Herschel Jamieson, Ph. B.
University of Chicago
[2]Gilbert Henry Jertberg, A. B.
[3]Harold Richard Kelly, A. B.
Bucknell University
[1]Everett Seymour Layman, A. B.
[2]Albert Wagner Leeds, A. B.
[3]John Kenneth Lilly, A. B.
[1]Ivan G. McDaniel, A. B.
[2]Ernest William McFarland, A. B.
University of Oklahoma
Gordon Walter Mapes, A. B.
Robert Koehler Meyers, A. B.
[2]Benjamin Stanley Parks, A. B.
[1]James Abram Quinby, A. B.
[1]Philip Hand Richards, A. B.
Yale University
Harold Shepherd, A. B.
John Edwin Crescent Simpson, A.B.
[1]William Braden Swinford, A. B.
Harvard University
Gerald C. Thomas, A. B.
[2]Alvin William Wendt, A. B.
University of Southern California
[1]Atwell George Westwick, A. B.
[2]Fred Ferrell White, A. B.
Burnet Coleman Wohlford, A. B.

DOCTOR OF MEDICINE

Frank Ellsworth Blaisdell, Jr., A.B.
Gilbert S. Bovard, A. B.
University of Southern California
Richard Ormi Bullis, A. B.
Sigurd von Christierson, A. B.
Harry Carson Coe, A. B.
William Whitfield Crane, Jr., A. B.
George I. Dawson, A. B.
University of California
[2]Robert James Dixon, A. B.
Douglas Richard Drury, A. B.
Ehler Eiskamp, A. B.
Randolph Gove Flood, A. B.
James Morrille George, A. B.
Brigham Young University

[2]Thomas Raymond Haig, A. B.

James Hinquong Hall, A. B.

Newton Rumell Jackson, A. B.
Brigham Young University

Jens P. Jensen, B. S.
University of Idaho

Eileen M. Leonard, A. B.
University of California

Hyman Miller, A. B.

Earl Burdette Newton, M. S.
University of Washington

Robert S. Northrop, B. S.
Michigan Agricultural College

Edward Andrew Schaper, A. B.
College of Puget Sound

[3]Charles F. Sebastian, A. B.

Ruth Thygeson Shepardson, A. B.
University of Minnesota

Wilbur Frank Swett, A. B.

Harriet Elizabeth Twombly, A. B.

Helen Lucile Williamson, A. B.

[2]Leonard Woods, A. B.
University of California

So Sabro Yamada, A. B.

DOCTOR OF PHILOSOPHY

BOTANY, CHEMISTRY

[2]Olenus Lee Sponsler, A. M.
University of Nebraska

CHEMISTRY, MECHANICAL ENGINEERING

[2]Francis William Bergstrom, Ch.E.

EDUCATION, PSYCHOLOGY

Giles Murrel Ruch, A. B.
University of Oregon

EDUCATION, SOCIOLOGY

[1]Kimball Young, A. M.
University of Chicago

ENTOMOLOGY, BOTANY

Frank Raymond Cole, A. M.

GEOLOGY

Henry Van Wagenen Howe, A. B.
University of Oregon

MEDICINE, PHYSIOLOGY, BIOCHEMISTRY

Eshref Shevky

PHYSICS, MATHEMATICS

George Russell Harrison, A. M.

ROMANIC LANGUAGES, LATIN

Leo George Lacombe, A. M.

FELLOWS AND SCHOLARS

1921–22

FELLOWS

THOMAS WELTON STANFORD FELLOW IN PSYCHIC RESEARCH

John Edgar Coover.....Stanford University
A. B., Stanford, 1904, A. M., 1905, Ph. D., 1912

BUCKEL FELLOW IN EDUCATION

Albert Sydney Raubenheimer.....George, South Africa
A. M., Columbia, 1921

CUBBERLEY FELLOW IN SCHOOL ADMINISTRATION

John Conrad Almack.....Eugene, Ore.
B. S., Oregon, 1920

TERMAN FELLOW IN THE STUDY OF SUPERIOR CHILDREN

Giles Murrel Ruch.....Eugene, Ore.
A. B., Oregon, 1914; Ph. D., Stanford, 1922

LIONEL REMOND LENOX FELLOW IN CHEMISTRY

Robert John Cross.....Mayfield
A. B., Stanford, 1911, A. M., 1920

UNIVERSITY FELLOWS

William Leroy Burdick (Chemistry).....Palo Alto
A. B., Kansas, 1909, A. M., 1912

Frank Raymond Cole (Entomology).....Redlands
A. B., Pomona, 1913; A. M., Stanford, 1921, Ph. D., 1922

[124]James Clarence De Voss (Psychology).....San Jose
A. B., Colorado, 1911, A. M., 1912

Douglas Richard Drury (Medicine).....Victoria, B. C.

Hazel Dorothy Hansen (Greek).....San Mateo
A. B., Stanford, 1920, A. M., 1921

Henry Van Wagenen Howe (Geology).....Eugene, Ore.
A. B., Oregon, 1916; Ph. D., Stanford, 1922

Leo Francis Pierce (Chemistry).....Grinnell, Ia.
M. S., Tulane, 1921

Olenus Lee Sponsler (Botany).....Palo Alto
A. B., Michigan, 1910; A. M., Nebraska, 1912

Frances Elizabeth Willis (Political Science).....Redlands
A. B., Stanford, 1920

Robin Willis (Geology).....Stanford University
A. B., Stanford, 1920, A. M., 1922

TEACHING FELLOWS IN CHEMISTRY

Alanson Wood McDermoth.....Palo Alto
A. B., Stanford, 1920, A. M., 1921

[34]Robert Nicolas Wenzel.....Palo Alto
A. B., Stanford, 1916, Engineer, 1917

BELGIAN RELIEF COMMISSION FELLOWS

Harold Enos Crowe ..... Long Beach
A. B., Stanford, 1917

John Parsons Weller ..... Lowell, Mass.
A. B., Stanford, 1920

Marion Albert Zeitlin ..... Los Angeles
A. B., Stanford, 1918, A. M., 1920

NATIONAL RESEARCH COUNCIL RESEARCH FELLOW

Francis William Bergstrom ..... Stanford University
A. B., Stanford, 1918, Engineer, 1919, Ph. D., 1922

SCHOLARS

ALUMNI JORDAN SCHOLARS

[3]Charles Ashton Love (Medicine) ..... Atascadero
A. B., Doane, 1914

Archibald Wilson Warnock (Medicine) ..... Palo Alto
A. B., Stanford, 1918

[12]Arthur Fulton Warren ..... Washington, D. C.
A. B., Stanford, 1919

THE GEORGE E. CROTHERS SCHOLARS

[1]Albert Wagner Leeds (Law) ..... Los Angeles
A. B., Stanford, 1920, J. D., 1922

[23]Homer William Patterson (Law) ..... Richmond

THE CYRIL F. ELWELL SCHOLAR

Arthur Lionel Williams (Electrical Engineering) ..... Seattle, Wn.
A. B., Stanford, 1921, Engineer, 1922

THE IRA S. LILLICK SCHOLAR

William Balder Backlund (Law) ..... Kingsburg
A. B., Stanford, 1920

THE MRS. IRA S. LILLICK SCHOLAR

Harold Shepherd (Law) ..... Paris, Id.
A. B., Stanford, 1919, J. D., 1922

THE MABEL HYDE CORY SCHOLAR

Virginia Belle Lowers (History) ..... Los Angeles
A. B., Stanford, 1922

THE WILLIAM IRVIN WEAVER SCHOLAR

Charles Drabkin (Chemistry) ..... Los Angeles
A. B., Stanford, 1922

THE BERTHA HYDE BRALY SCHOLAR

Mary Lida Cornes (Latin) ..... San Jose
A. B., Stanford, 1922

The E. C. Converse Scholars

[3]Frederick William Bachman (French) ..... Stanford University
A. B., Stanford, 1922
[3]Helen Katherine Broughall (Lower Division) ..... Salt Lake City, Utah
[3]Wilson Craven (Lower Division) ..... Bellingham, Wn.
[3]Walter Grant Hays (Lower Division) ..... Palo Alto
[3]George S. Mizota (Lower Division) ..... Fukuoka, Japan

The W. J. Dickey Scholar

Algot Julius Peterson (Economics) ..... Kingsburg

The Hiram C. Fisk Scholar

Anna Frances Ramsay (English) ..... Stanford University

The Gertrude Gardiner Scholar

Ellen Elizabeth Brailsford (Lower Division) ..... Hagerman, Id.

The Wilmer J. Gross Scholar

Dell Theodore Lundquist (Chemistry) ..... Middletown
A. B., Stanford, 1922

The Brodie G. Higley Scholar

Cecil Hastings Balmat (Mechanical Engineering) ..... Spokane, Wn

University Scholars

Cordes Westerfield Ankele (Medicine) ..... San Francisco
A. B., Stanford, 1919
Reo Bliss Armitstead (Anatomy) ..... San Francisco
A. B., Stanford, 1921
Stephen Martin Barooshian (French) ..... Fresno
A. B., Stanford, 1921
Robert Rowe Benson (Civil Engineering) ..... Banning
B. S., Arizona, 1918
Everett Carlson (Medicine) ..... San Francisco
A. B., Stanford, 1920
Philip Corriston Clark (Electrical Engineering) ..... Stanford University
A. B., Stanford, 1921
Wilfred Sterling Clark (Medicine) ..... Palo Alto
A. B., Stanford, 1921
Dorothy Rose Crever (Mathematics) ..... San Jose
A. B., Stanford, 1921
Helen Lois Dale (Botany) ..... Palo Alto
A. B., Stanford, 1921
Muriel Emma Edwards (Medicine) ..... Wallace, Id.
A. B., Stanford, 1921
Franklin Harold Gobar (Medicine) ..... Fullerton
A. B., Stanford, 1921
Edwin Wilson Hadley (Law) ..... San Diego
A. B., Stanford, 1921

Ernest Mosiah Hall (Medicine) ..... St. George, Utah
A. B., Brigham Young, 1905; M. S., State College of Washington, 1916

[1]John J. Heffernan (Economics) ..... Syracuse, N. Y.
A. B., Stanford, 1921

Ivan Clyde Heron (Medicine) ..... Watsonville
A. B., Stanford, 1919

Charles Roger Hicks (History) ..... Los Gatos
A. B., Clark, 1915; A. M., Stanford, 1922

Anne Scott Ireland (English) ..... Palo Alto
A. B., Mills, 1921

Gertrude Edith Jennings (English) ..... Redlands
A. B., Redlands, 1920

Floyd Loren Kallam (Mechanical Engineering) ..... San Diego
A. B., Stanford, 1921, Engineer, 1922

Paul Francis Kerr (Mining and Metallurgy) ..... Stanford University
B. S., Occidental, 1919

Malcolm Brus Kildale (Geology) ..... Eureka
A. B., Stanford, 1921

Henry Joseph Lund (Medicine) ..... San Jose
A. B., Stanford, 1919

James Douglas McPherson (Mining and Metallurgy) ..... San Jose
A. B., Stanford, 1920, Engineer, 1922

Reed Miller Nesbit (Medicine) ..... Berkeley
A. B., Stanford, 1921

Ruth Allen Nethercut (Medicine) ..... Lake Geneva, Wis.
A. B., Stanford, 1919

John Perry Pritchett (History) ..... Grafton
A. B., Stanford, 1921, A. M., 1922

Matthew Cheney Simpson (Law) ..... Long Beach
A. B., Stanford, 1921

[2]Luis José de Souza (History) ..... Quepem, Goa, India
A. B., Stanford, 1921, A. M., 1922

Maurice Lane Tainter (Medicine) ..... Taber, Canada
A. B., Stanford, 1921

[12]Herman Van Polen (English) ..... Palo Alto
A. B., Denver, 1916

Clarence Eldon Walton (English) ..... Madison, Me.
A. B., Bates, 1920; A. M., Stanford, 1922

Herbert Sessions Wells (Medicine) ..... Hamakuapoko, T. H.
A. B., Stanford, 1921

The Ernest A. Love Scholar

Cecil Robert Brolyer (Chemistry) ..... Stanford University

The Mrs. McDowell Roble Club Scholar

Ruth Mabel Morris (Latin) ..... Oxnard
A. B., Stanford, 1922

The Dorothy Metz Scholar

Halfdan Ingstrup Gregersen (Spanish) ..... Solvang
A. B., Stanford, 1922

THE MARCELLE HENRIETTE ROUILLER SCHOLAR

Henry Elmer Geyer (Mechanical Engineering) ..... Burley, Id.
A. B., Stanford, 1922

THE LEON SLOSS SCHOLAR

[2]Faye Josephine Hunt (English) ..... Twin Falls, Id.
A. B., Stanford, 1922

THE JOHN MAXON STILLMAN SCHOLAR

Francis Albert Smith (Chemistry) ..... Palo Alto
A. B., Stanford, 1922

THE LELAND STANFORD JUNIOR MEMORIAL SCHOLAR

Robert Cedric Binkley (History) ..... Cobb
A. B., Stanford, 1922

THE GRAY'S HARBOR REGIONAL SCHOLAR

Roger Ellsworth Blackburn (Chemical Engineering) ..... Aberdeen, Wn.
A. B., Stanford, 1922

THE SAN MATEO HIGH SCHOOL REGIONAL SCHOLAR

[1]Emil James Moklofsky (Lower Division) ..... San Mateo

STUDENTS

Name; home residence; major subject; status; University residence; post-office. Post-office in all cases *Stanford University* except where University residence is followed by initial letter of town ('p' indicates *Palo Alto* post-office; 'Mayfield-m,' *Mayfield* post-office, etc.). Street address *Palo Alto* or *Campus* unless otherwise named.

Status.—gr., graduate student; sp., special student. The figures after major subject indicate, first, the number of units of university work completed (and counting toward the 180 units required for graduation), no account being taken of 'deferred,' 'incomplete,' or 'conditioned' work; second, the number of grade points in excess of, or falling short of, the number of registered units ('+20', in excess; '—20', deficient). Where two numbers (separated by a point) precede the plus or minus sign, the first indicates the number of units of advanced or other credit to which the grade-point system does not apply; thus 45·50 + 10 means that the total credit is 95 units, but that the + 10 grade points are based upon the 50 units only.

The superior figure 1 indicates registration for the autumn quarter only; 2 indicates winter quarter only; 3 indicates spring quarter only; 12 indicates autumn and winter quarters only; 23 indicates winter and spring quarters only; 13 indicates autumn and spring quarters only; 5 indicates autumn, winter, spring and summer quarters. The asterisk (*) indicates registered *in absentia;* the double dagger (‡) indicates unadjusted standing from other colleges and universities. (Phys.=Physics; Phyl.=Physiology.)

[234]de Aberle, Sophie	Stanford Univ.	Bact. 84·45+54	147 Roble
[5]Abrams, Delos, Jr.	Pasadena	Geol. ‡ 67·60+0	336 Encina
[12]Abrams, Harry William	Stanford Univ.	Geol. 44·150+71	Theta Delta Chi
A. B., Stanford, 1922.			
Adams, Bradford C.	Los Angeles	LD 47+32	128 Encina
[4]Adams, Donald G.	Riverside	LD	Sequoia
[23]Adams, Dorothy Warren	Palo Alto	LD 28–18	428 Channing-p
Adams, Ephraim	Turlock	LD 41+33	765 Channing-p
[1]Adams, Eugene Robert	Mountain View	Span. 96–30	Mountain View-mv
[4]Addis, Viola Mae	Connelsville, Pa.	LD sp.	317 Roble
[4]Agosti, Alfred P.	San Luis Obispo	Sch. Educ. gr.	Sigma Chi
B. S., Oregon State Agricultural College, 1919.			
Aguerrevere, S. E.	Caracas, Venezuela	LD 99+50	Theta Chi
[4]Aho, Leonard	Astoria, Ore.	Educ. gr.	559 Cowper-p
A. B., Stanford, 1920, A. M., 1921.			
Aid, Harry	Gallatin, Mo.	Geol. 135·28+30	Kappa Sigma
A. B., Stanford, 1922.			
Aitken, Harry Christie	Berkeley	Med. gr.	2241 Parker, B-b
A. B., Stanford, 1921.			
Aitken, William Ernest	Cockermouth, Eng.	LD 38–8	W.W.Sch., MenloPk-mp
Alabaster, Lewis Plimpton	Riverside	LD 96+92	Beta Theta Pi
Albrecht, Helmuth W.	Great Falls, Mont.	LD 60–31	347 Encina
[4]Alexander, Bess Louise	Globe, Ariz.	Educ. gr.	211 S. 8th, SJ-sj
A. B., Arizona, 1922.			
Alexander, Herbert Bloom	San Jose	Hist. 99+154	650 Waverley
A. B., Stanford, 1922.			
[4]Alexander, Ralston C.	Salinas	Ed. G. A. 169+13	Theta Chi

Alexander, TomCharles, Jr.	KansasC'y, Mo.	LD 44–3	Delta Tau Delta
Alexander, Walter Stevens	Los Angeles	M. E. 47·83–1	Beta Theta Pi
Allegrini, Rita Adelaide A. B., Stanford, 1922.	San Jose	Engl. 91·94+88	333 N. 5th, SJ-sj
Allegrini, Rose Gertrude A. B., Stanford, 1921, A. M., 1922.	San Jose	Lat. gr.	333 N. 5th, SJ-sj
Allen, Arthur Francis A. B., Stanford, 1922.	Corvallis, Ore.	Econ. 130·51+12	Sigma Chi
Allen, Carnot R. A. B., Stanford, 1922.	San Antonio, Tex.	Econ. 180+210	509 Encina
[12]Allen, Dorothy Hoskins A. B., Stanford, 1922.	Palo Alto	Engl. 53·128+93	424 Seneca-p
Allen, Edgar Melbourne	Oakland	LD 30+0	49 Sequoia
[5]Allen, Ernest William	Palo Alto	Hist. sp. 6·86+48	424 Seneca-p
Allen, Lloyd Jeffreys	Palo Alto	LD 58+15	909 Hamilton-p
[4]Allen, Mary Ware A. B., California, 1919.	Bonita	Nursing gr.	165 Roble
[12]Allen, Niel Richardson A. B., Stanford, 1918, J. D., 1922.	Palo Alto	Law gr.	821 Bryant-p
[12]Allen, Raymond Earl A. B., Stanford, 1922.	Riverton, Wyo.	Econ. 109·86+9	Alpha Delta Phi
[5]Allen, Raymond Jackson A. B., Stanford, 1922.	Riverside	Econ. gr.	338 Encina
[4]Allen, Stella Connelly A. B., Stanford, 1916.	San Francisco	Hist. gr.	601 Melville-p
[5]Allexsaht, William John A. B., Stanford, 1922.	Weiser, Ida.	Phyl.-Med. gr.	316 Union
Allison, Horace Burgess	Santa Ana	LD 40–5	Theta Delta Chi
Allmand, JohnTheiler	HighlandP'k, Mich.	LD 97+54	121 Encina
[4]Almack, James L. B. S., Oregon, 1920.	Portland, Ore.	Educ. gr.	Mayfield
[5]Almack, John Conrad B. S., Oregon, 1920.	Eugene, Ore.	Educ. gr.	331 Bowdoin, M
Alvord, Benjamin, Jr.	San Francisco	C.E. 50·140+2	513 Encina
Amberg, Gustav Adolph	San Francisco	C.E. 139+12	364 Encina
Ambler, Alfred Carleton A. B., Stanford, 1921.	Lamanda Park	Med. gr.	524 Encina
Ambrose, Norman W.	Ft. Morgan, Colo.	LD 47+4	336 Encina
[12]Anawalt, Bernard	Los Angeles	C.E. 30+2	Phi Delta Theta
[5]Andersen, Emelie E. A. B., Stanford, 1919.	Spokane, Wn.	Med. gr.	2141 Buchanan, SF-sf
Anderson, Carl William	Livermore	LD 43–15	Theta Chi
Anderson, Frederick Leroy	Forestville	Chem. 10·113+21	Sigma Nu
[12]Anderson, George Irvin	Oakland	LD 40+13	41 Encina
[5]Anderson, Henry Stow A. B., Stanford, 1922.	Mayfield	Econ. gr.	College Ter., M-m

Anderson, Ivan Bert	Porterville	LD 36–11	Theta Chi
Anderson, Joanna Maria	Pasadena	LD 46+18	260 Roble
Anderson, L. Harold	Minneapolis, Minn.	C.E. 63-33–1	Delta Chi
[4]Anderson, Mary C.	Manistique, Mich.	Sch. Ed. ‡	
[234]Anderson, Ottilia Christine	San Jose	Engl. 113-32+31	173 Roble
Anderson, Ralph Eugene	Kingsburg	LD 53+40	249 Encina
Anderson, Werner Eugene	Livermore	LD ‡ 42–6	Theta Chi
[5]Andrenccetti, Ameglio	San Francisco	Law gr.	3400 Sacramento, SF-sf
A. B., Nevada, 1920.			
Andrews, Allen Hastings	Palo Alto	Engl.-Jn. 20-161+98	315 Encina-p
A. B., Stanford, 1922.			
Andrews, Amy Violet	Los Angeles	Econ. 120+72	Kappa Kappa Gam.
[1]Andrews, Bertrand Albert	Pasadena	LD 14+12	601 Webster
[4]Andrews, Clara Duncan	Waterman	Hist. gr.	Roble
B. S., Oregon Agricultural College, 1895.			
[34]Andrews, Esther C.	Whittier	Ger. gr.	735 Homer-p
A. B., Stanford, 1906.			
[1]Andrus, Harry Jerome	Dillon, Mont.	LD 23+3	Kappa Alpha
Andrus, Orrin Edgar	Troy Center, Wis.	LD 63+48	69 Sequoia
Anglim, James Harold	Represa	Law 136+116	528 Encina
Ankele, Cordes W.	San Francisco	Med. gr.	1670 Clay, SF-sf
A. B., Stanford, 1919.			
[5]Ankele, John Henry, Jr.	San Francisco	Law gr.	Chi Psi
A. B., Stanford, 1921.			
Annand, Percy Nicol	Delta, Colo.	Ent. gr.	111 Bryant-p
B. S., Oregon Agricultural College, 1920.			
Anthony, Donald Elliott	Sunnyvale	Econ. 186+129	Bx124,Sunnyvale-s
A. B., Stanford, 1922.			
Anzini, Daniel Irwin	Mountain View	M.E. 10-139+154	Mt. View-mv
[4]Appleton, Ethel Bontz	Martinez	Engl. 24-137+157	327 Everett-p
[5]Applewhite, Samuel P., Jr.	Douglas, Ariz.	Geol. 145+125	Phi Kappa Sigma
[4]Archer, Lester W.	Dinuba	LD ‡ 18+13	303 Union
Archer, William Harry	Santa Monica	LD 28–13	433 Encina
Ardell, Robert Bernard	San Francisco	Law 173+18	66 Sequoia
Argall, Marsden Stratton	Milpitas	LD 51–5	Milpitas-m
[3]Arimori, Yoshikiyo	Okayama, Japan	Econ. ‡ 14–8	Japanese Club
[23]Armanini, Lawrence August	Mt. View	LD 45+69	Mt. View-mv
[5]Armitstead, Reo Bliss	San Francisco	Anat. gr.	2200 Hayes, SF-sf
A. B., Stanford, 1921.			
[2]Arthur, James Leland	Clovis	LD 51–17	52 Encina
Ashby, Henry Arthur	Los Angeles	LD 32–26	Kappa Alpha
Ashford, Clarence Chester	Fruita, Colo.	LD 40–18	Runnymede
Ashley, Hammond	Palo Alto	LD 111+109	Alpha Kappa Lambda
[12]Ashley, Willa	Palo Alto	Fr. 182+214	611 Waverley-p
A. B., Stanford, 1922.			

[1]*Ashworth, William	Santa Barbara	Engl. gr.	Santa Barbara-sb
A. B., Dartmouth, 1909; A. M., Stanford, 1922.			
Aten, Imogen	El Centro	Econ. 20·169+74	Chi Omega
A. B., Stanford, 1922.			
[23]Atwater, Clement Finley	Hollywood	LD 63+3	Alpha Tau Omega
Atwill, Edward Robert	San Gabriel	LD 89+70	Delta Upsilon
Atwood, David Stoddard	Los Angeles	M.E. 36·125+82	Alpha Tau Omega
[1]Aubert, Lloyd Lees	San Mateo	Geol. 32·154+139	Phi Delta Theta
A. B., Stanford, 1922.			
[5]Austin, Arthur	Oakland	Econ. 115+24	Delta Tau Delta
[1]Austin, Harry Victor	Oakland	Geol. 60–17	Delta Tau Delta
Austin, Laura Virginia	Fresno	C.E. 90·43+64	146 Roble
Averill, Harold Light	Portland, Ore.	Phyl. gr.	434 Encina
A. B., Stanford, 1921, A. M., 1922.			
[12]Avilla, Leonard Ray	Hughson	LD 46+17	50 Sequoia
Aydelott, James Lee	Hanford	LD 16+0	Sigma Nu
[4]Ayer, J. Warren	Phoenix, Ariz.	Educ. gr.	Runnymede-p
A. B., Otterbein, 1907.			
[5]Ayres, Elliott Howard	Palo Alto	Econ. sp. 10·68+55	603 Waverley-p
[4]Ayres, Helen Margaret	Los Gatos	Chem. gr.	391 Central, PG-pg
A. B., Mills, 1918.			
[234]Ayshford, Loren C.	Stewartville, Minn.	LD 26+8	340 Embarcadero-p
Azevedo, John Anthony	Sacramento	Med. gr.	241 Stoakes, S.Leandro-sl
A. B., Stanford, 1920.			
[5]Bachman, Frederick Wm.	Stanford Univ.	Fr. 60·121+180	208 Union
A. B., Stanford, 1922.			
[4]Bachrodt, Walter L.	San Jose	Educ. gr.	686 S. 8th, SJ-sj
A. B., Stanford, 1920, A. M., 1921.			
[5]Bacigalupi, Rimo Charles	San Francisco	Bot. 8·122+193	404 Encina
deBack, Norman John	San Francisco	LD 74–25	Delta Tau Delta
Backlund, William Balder	Kingsburg	Law gr.	303 Encina
A. B., Stanford, 1920.			
[12]Bacon, Bruce	San Jose	Econ.sp. 45·51+4	269 S. 12th, SJ-sj
Bader, Glenn Ernest	Long Beach	LD 37+49	706 Cowper-p
Badham, Byron Jack, Jr.	Los Angeles	LD 94+87	349 Encina
[4]Baer, Noel Oliver,	Tucson, Ariz.	Educ. gr.	52 Sequoia
B. S., Arizona, 1922.			
[12]Baer, Sylvan	Hoquiam, Wash.	Chem. 180+85	308 Encina
A. B., Stanford, 1922.			
Bailard, Beverley Benj.	Carpinteria	LD 8·98+141	346 Encina
Bailard, Carey Gwyn	Carpinteria	Econ. 180+145	Pi Beta Phi
A. B., Stanford, 1922.			
[234]Bailard, Ellen White	Carpinteria	Sch. Ed. gr.	Madroño
A. B., Stanford, 1920.			
Bailey, Marguerite Doris	Red Bluff	Ed.G.A.144+95	Alpha Omicron Pi

Bailey, Thomas Andrew	Santa Clara	LD 92+177	103 N. Bascome,SC-sc
[4]Bailey, Wilbur Porter	Wayne, Pa.	LD	112 18th, PG-pg
[12]Bailie, Everett Graves	Los Angeles	LD 78+84	355 Encina
[23]Bailie, Margaret Allen	Los Angeles	LD 46·23+1	357 Roble
Bailiff, Laurence Deane	Los Angeles	Span. gr.	224 Union
A. B., Stanford, 1918, A. M., 1919.			
[1]Baker, Charles Christopher	Lewiston,Ida.	LD 38–12	Sigma Chi
Baker, George Harold	Santa Ana	LD 74+9	Delta Upsilon
[5]Baker, Harry Vincent	Grimes	Med. gr.	2317 Sacramento, SF-sf
A. B., Stanford, 1921.			
[34]Baker, Joseph Lucien	Denver, Colo.	LD sp. 15+2	234 Union
[5]Baker, Leland Stanford	Canyon, Tex.	Bot. gr.	352 Everett
A. B., Trinity College, 1915.			
Baker, Mary	Baker, Ore.	LD 47+49	223 Roble
Balcomb, Violet May	Palo Alto	LD 60+108	220 Emerson-p
[4]Ballard, Modrel Moffett	Abilene, Tex.	Span. gr.	32 Sequoia
A. B., Baylor University, 1920.			
Balmat, Cecil Hastings	Spokane, Wash.	M.E. 123+235	302 Encina
Baltimore, Louis	Los Angeles	Phyl. 135·52+34	211 Union
A. B., Stanford, 1922.			
[12]Bannon, Thomas Jefferson	Los Angeles	LD ‡ 17–20	Zeta Psi
[5]Baptie, Charles Christopher	Bakersfield	LD 72+18	Sigma Nu
[1]Barber, Alma Louise	Colo. Spgs., Colo.	Econ. gr.	Kingscote
A. B., Goucher, 1918.			
Barber, Elsa Jean	San Francisco	LD 46+57	338 Roble
Barber, Ruth Janet	New York, N. Y.	Engl. gr.	Madroño
B. A., Wells, 1919.			
[1]Barber, William Richmond	Palo Alto	Chem. gr.	659 Melville-p
A. B., Stanford, 1920, Engineer, 1921.			
Barby, Otto Carl	Knowles, Okla.	Law 110+97	130 Encina
Barby, Ralph Earl	Knowles, Okla.	LD 93–10	130 Encina
[5]Barham, Leonard Edwin	Princeton	LD 57–11	Theta Delta Chi
[1]Baring, Arnoldo William	Palo Alto	Law 93·13+1	558 Hawthorne-p
Barker, Richard Hindry	Palo Alto	Engl. 181+320	633 Hamilton-p
A. B., Stanford, 1922.			
[4]Barker, Wallace W.	Pasadena	Fr. gr.	Alpha Kappa Lambda
A. B., Harvard, 1905.			
[5]Barley, Charles Victor	Long Beach	LD 48·43+38	87 Sequoia
[12]Barlow, Frederick W., Jr.	Hollywood	LD 44+16	Phi Kappa Psi
Barnard, Leonard Bryan	Niles	Pre-Clin. 18·220+69	Theta Chi
A. B., Stanford, 1922.			
Barnes, Edwin Rexford	Ceres	Econ. 4·139+114	21 Sequoia
Barnes, Glen Charles	Los Angeles	LD 42–9	Kappa Sigma
[1]Barnes, Robert Leighton	Duluth, Minn.	LD 62+12	Alpha Delta Phi

Barnett, Charles Wentworth	Santa Rosa	Chem. 142+226	8 Mirada
Barnett, Eric Gordon	Lower Lake	LD 90+40	1335 Cowper-p
Barnhart, Harriett Glines A. B., Stanford, 1922.	San Diego	Hist. gr.	Pi Beta Phi
Barooshian, Stephen Martin A. B., Stanford, 1921.	Fresno	Fr. gr.	207 Union
Barr, Mary Alice A. B., California, 1921.	Whittier	Sch. Ed. gr.	Madroño
[12]Barricklow, Eljah Lulu	Turlock	Engl. 108+91	Gamma Phi Beta
[4]Barry, Raymond Walker A. B., Ohio Wesleyan, 1915; A. M., Stanford, 1916.	Santa Barbara	Engl. gr.	Runnymede Park-p
[4]Barry, William T., Jr. A. B., Stanford, 1916.	Santa Barbara	Engl. gr.	43 Sequoia
[4]Bartlett, Ruth A. B., Boston, 1913.	Arcata	Engl. gr.	249 Roble
[13]Barton, Roberta Marie A. B., Stanford, 1922.	Long Beach	Fr. 10·172+213	326 Roble
[5]Bashor, Elias Harold A. B., Harvard, 1916.	Palo Alto	Hist. gr.	1027 Bryant-p
[4]Bass, Ethel Marie	Los Angeles	Bot. ‡	Pacific Grove-pg
[5]Bassett, Thomas E. A. B., Stanford, 1922.	Palo Alto	Min. gr.	332 Channing-p
[1]Bateman, Albert John	Monrovia	C.E. 100+77	757 Homer-p
[4]Bates, Merrill	Menlo Park	LD	Box C, Menlo Park-mp
[1]Baugh, Allyn Ray	Monterey	LD 17–24	202 Encina
Baum, Edwin Kennith A. B., Stanford, 1922.	Norfolk, Neb.	M.E. 93·104–122	321 Encina
[4]Baughman, Imo Pearl A. B., Stanford, 1918; A. M., 1919.	Portland, Ore.	Chem. gr.	263 Roble
Baumert, Frances Elvira A. B., Kansas Wesleyan, 1918; A. M., Stanford, 1922.	Orange	Engl. gr.	Madroño
Bayley, Arnold Blakeman	Los Angeles	Econ. 97–6	Alpha Sigma Phi
Baylis, Edythe Goodwin	Los Angeles	LD 85+23	Chi Omega
Beach, Rachel Julia	Palo Alto	LD 15·33+15	176 Roble
Beach, Walter Edwards A. B., Stanford, 1922.	Palo Alto	Econ. 73·108+172	540 University-p
Bean, James A. B., Stanford, 1922.	San Jose	M.E.82·125+19	755Univ'sity,SJ-sj
Beardsley, CharlesEdward	Los Angeles	LD 66+47	13 Encina
Beardsley, Frank Dey	Stanford Univ.	M.E. 45·97+161	31 Sequoia
[4]Beardsley, Oda Mae	Mesa, Ariz.	Educ. ‡	146 Roble
Beattie, Augustus C. A. B. Stanford, 1922.	Portland, Ore.	Phyl-Med. 190+171	Kappa Sigma
[3]Beaufort, Jan M. M. Van	Nuys, Holland	LD	127 Encina
[5]Beaver, Harold Jay B. S., Washington State, 1916.	San Francisco	Med. gr.	2317 Sacramento, SF-sf
[12]Beck, Charles Baber	Dubois, Wyo.	LD 18·31+62	356 Kingsley-p

[12]Beck, Margaret Dorothy A. B., California, 1920.	Berkeley	Med.Dept.gr.	1636Jo'phine,Berk-b
Becker, Arthur C. W.	Springerville, Ariz.	LD 103+46	Alpha Kappa Lambda
Becker, Hugo E. A. B., Stanford, 1922.	Springerville, Ariz.	M.E. 84·118+17	Alpha Kap. Lamb.
[1]Bedoya, George	Arequipa, Peru	LD ‡ 6–12	667 Channing-p
[1]Bedoya, Hector	Arequipa, Peru	LD ‡ 7–15	667 Channing-p
[4]Beecroft, Mary Corbett	Stanford Univ.	LD sp.	364 Roble
Beede, Arthur Huntington B. S., Occidental, 1920.	Whittier	Med. gr.	209 Union
[12]Behneman, Harold M. F. A. B., California, 1920.	Oakland	Med. gr.	282 University-p
Belcher, Stanley Smith	Marysville	LD 46+8	Kappa Sigma
[4]Belieu, Virgil Ray A. B., Stanford, 1911.	Watts	Sch. Ed: gr.	69 Sequoia
[4]Belk, Norvell Carlton A. B., Baylor, 1920.	Waco, Tex.	Hist. gr.	Palo Alto-p
Bell, Frederick Fancher	Carlsbad, N. M.	LD 41–9	7 Cabrillo
Bell, Luther Shepard	Carlsbad, N. M.	LD 50+66	405 Encina
Bell, Muriel Frances	Palo Alto	Fr. 18·85+19	532 Homer-p
[13]Beltz, Samuel Stewart	Pasadena	Econ. 53–7	209 Addison-p
[4]Bennett, Catherine M.	New York, N. Y.	LD sp.	331 Roble
[12]Bennett, Guy Morrison	Hollywood	LD ‡ 40–25	305 Emerson-p
[4]Bennett, Manford W.	Oakland	LD	528 Stockton, SJ-sj
[12]Bennett, Vaughn Willis	Los Angeles	LD 73+25	80 Sequoia
[5]Benninger, Charles J., Jr.	San Francisco	LD 90+30	Delta Tau Delta
[34]Benson, Allen G.	Huntington, Pa.	C.E. ‡ 13–10	Sigma Nu
[12]Benson, Cecil Raney	Santa Clara	LD 48+37	1515 Franklin, SC-sc
Benson, Gilbert Thereon	Oswego, Ore.	Engl.48·117+179	HotelPaloAlto-p
Benson, Robert Rowe B. S., Arizona, 1918.	Banning	C.E. gr.	318 Lincoln-p
Bentley, Charis Eugenia	Menlo Park	LD 57+35	Laurel Ave., MP-mp
[2]Bentley, Ruth Mary	Palo Alto	Econ. 19·39+40	635 Homer-p
[2]Bentz, Marion	Pasadena	LD	Roble
Bentz, Philip George, Jr.,	San Francisco	LD 67–21	475 Forest-p
[12]Berendsen, Anita M.	San Francisco	Econ. 96+82	Alpha Phi
[12]Bergen, Stanley Barstow	San Diego	LD ‡ 24–21	Kappa Sigma
[5]Berk, Henry H.	Alstown, Wn.	LD 88+29	207 Encina
Berman, Morris	Petaluma	LD 103+112	305 Encina
[5]Bernstein, Frank Stewart	San Francisco	Econ. 123+61	121 Encina
[5]Bernt, Daniel Martin, Jr.	Spreckels	Geol. 39·119+3	Theta Chi
Berry, Lowell Webster	Asotin, Wn.	LD 77+1	109 Encina
[4]Berry, Nancy Jane A. B., California, 1922.	Palo Alto	Educ. gr.	660 Waverley-p

[12]Berry, Othmar Berarde	Selma	Econ. 15·51–2	Phi Kappa Sigma
Berry, Willard Elwin	Palo Alto	LD 52+20	660 Waverley-p
Bertrand, DeWitt C.	Aberdeen, Wn.	M.E. 134+22	330 Encina
[4]Best, Rouie Alice	Riverside	Hist.-Jn. ‡	312 Roble
Beswick, Katherine	Tustin	Fr. 10·130+186	322 Roble
Bettelheim, Albert S.	Visalia	LD 36–17	5 Sequoia
[5]Betts, Forrest Arthur A. B., Stanford, 1922.	Phoenix, Ariz.	Law gr.	4 Union
Beuter, Paul Henry	Los Angeles	Econ. 135+8	422 Encina
Bianchi, Marie Lucy	Mountain View	Span. 141+113	932 Wash., MV-mv
[5]Bichsel, Stanley Earnest	Long Beach	Econ. 26·97+2	Beta Theta Pi
Biddison, James Philip	Goodland, Kans.	LD 43–4	405 Encina
Biddle, Eunice Katherine	Long Beach	LD 90+62	Delta Gamma
Bidwell, Lillian Follis	Glendora	LD 45+43	380 Roble
Bielefeldt, William Talbot	Placentia	LD 45+56	445 Encina
Bigelow, Herbert S.	O'Neals	LD 61+93	Mountain View-mv
Biggar, Virginia Keith	Los Angeles	Econ. 47·62–5	Kap. Kap. Gamma
Billings, Geraldine A. B., Stanford, 1922.	McFarland	Fr. 15·165+234	230 Roble
Bills, Walter Leonard A. B., Stanford, 1922.	Coalinga	C.E. 5·182+104	223 Encina
Binkley, Robert Cedric A. B., Stanford, 1922.	Cobb	Hist. 71·112+171	331 Encina
Binkley, Tholow A. B., Stanford, 1910.	San Francisco	Med. gr.	2401 Sacramento, SF-sf
[5]Binns, Archie Fred	Shelton, Wn.	Phil. 163+17	71 Sequoia
Bird, Milo Alfred A. B., Stanford, 1922.	Stanford Univ.	Chem. gr.	22 Sequoia
Bireley, Frank Wolsey	Hollywood	LD 58+34	Delta Upsilon
[5]Birnie, Bernard John	Long Beach	LD sp. 32–4	235 Union
[12]Bishop, Clyde	Courtland	LD 27–31	128 Encina
[5]Bishop, W. Bradford	Colo. Spgs., Colo.	Geol. 72·92+86	Kappa Sigma
[4]Bissinger, Paul	San Francisco	LD	332 Union
[124]Black, Howard Walter	Palo Alto	LD 52–8	Delta Kappa Epsilon
[12]Black, Nelson Wilson	San Francisco	Engl.-Jn. 69–18	217 Encina
Black, William Madison, Jr.	Salinas	C.E. 144+82	Delta Upsilon
[5]Blackburn, Chester Oklahoma	Ontario	Chem. sp. 10·184+21	62 Encina
Blackburn, Roger E. A. B., Stanford, 1922.	Aberdeen, Wn.	Chem. gr.	57 Encina
Blacker, Carroll C.	Bakersfield	C. E. 39·85+43	407 Encina
Blackman, Birt Griffin	Ogden, Utah	Econ. 139+114	404 Encina
Blakeslee, Edwin M. A. B., Stanford, 1922.	St. Joseph, Mo.	M.E. 187+202	Theta Xi
[4]Blaney, Besse A.	Occidental	LD sp.	Roble

[1]Blaney, Wylie Warren	Portland, Ore.	LD 3–14	543 Byron-p
Bledsoe, Barbara Shepler	Los Angeles	LD 51–10	Delta Gamma
Blennerhassett, Lawrence I.	Long Beach	LD 62+1	329 Encina
Bley, Bertrand Adolph	San Francisco	LD 83+116	307 Encina
[23]Bley, Irma Lillian	San Francisco	Span. 95·31+37	271 Roble
[12]Blood, Richard Edson	Stanford Univ.	Econ. 52·129+77	Sigma Nu
A. B., Stanford, 1922.			
[23]Blosser, Fred Claire	Fresno	LD ‡ 26+4	Theta Chi
Blythe, Leora Lysle	Palo Alto	Engl. 137+38	109 Roble
[34]Boezinger, Humbert A.	Palo Alto	Geol. 11·158–5	324 Emerson-p
Boillot, Margaret Judd	Berkeley	Engl.-Jn. 92·53+28	P.A.Hosp-p
Bollinger, Eldred Floyd	Cupertino	LD 93+50	Box 55, Cupertino-c
Bonar, Perry Arthur	Santa Rosa	Chem. 83+68	Kappa Alpha
[4]Bonham, Bonnie	Wheat Ridge, Colo.	Educ. ‡	117 Roble
Bonner, W.Folsom	OklahomaCity, Okla.	LD 87+32	Phi Gamma Delta
[12]Bonnett, Alfred Bates	Riverside	LD 26–18	21 Encina
[12]Bonnot, Paul	Los Angeles	Zool. 86+10	Base Hospital
[4]Bontz, Mildred Katherine	Palo Alto	Span. gr.	327 Everett-p
A. B., Stanford, 1918.			
[1]Boodberg, Paul A.	Menlo Park	LD 10+5	Highw'y&Roble, MP-mp
[5]Booker, Eugene Ryan	Pembina, N.D.	Math. 54·87+25	655 So. 2d, SJ
[34]Booksin, Jeannette L.	Campbell	Phil. 105+15	Kingscote
Boone, Andrew Richmond	San Diego	LD ‡ 61+11	310 Encina
[5]Boone, Thomas Harold	Palo Alto	LD 51+10	430 Forest-p
Booth, Edwin Spencer	Roseburg, Ore.	Hist. 124+117	Cowper Court-p
Booth, Howard N.	Webster Groves, Mo.	LD 44–5	90 Sequoia
Booth, Robison Eyre	Butte, Mont.	LD 104+93	Kingscote
Borba, Harry James	Sebastopol	Engl.-Jn. 141+58	544 Encina
Borchers, Walter Claus	San Jose	LD 45+27	55 E. Empire, SJ-sj
[4]Borg, Martha E.	Los Angeles	LD sp.	315 Roble
Borthwick, Harry Alfred	San Jose	Bot. gr.	359 Encina
A. B., Stanford, 1921.			
[5]Boscoe, Carmen Thomas	Stockton	Phyl. 48·68+27	526 Encina
Boswell, Paul Frederick	Hartsville, S.C.	Min. gr.	450 Melville
A. B., Southern California, 1919.			
[1]Bothwell, Muriel Joy	Palo Alto	Econ. 180+232	900 Waverley-p
A. B., Stanford, 1922.			
[12]Botkin, Maurice Delano	Gresham, Ore.	LD 29+23	56 Sequoia
Botley, Richard Marsdon	Petworth, Eng.	LD 102+36	127 Middlefield
Botts, Ernest Lloyd	Santa Rosa	Med. gr.	2273 California, SF-sf
A. B., Stanford, 1922.			
Boucher, O. Jack	Oroville	Law 180+101	Theta Delta Chi
A. B., Stanford, 1922.			

Boughn, Margaret Irene — Visalia — Econ. 25-86–17 — 261 Roble
Bourns, Richard Thomas, Jr. — Elk — Econ. 21-56–10 — Phi Gamma Delta
[5]Bowen, Chester Stanfield — Vancouver, B.C. — LD 20-102+60 — 20 Encina
Bowen, Theodore E. — Twin Falls, Ida. — Law 16-148+170 — 430 Encina
[5]Bower, Gordon Rawlings — Buffalo, N.Y. — Engl. sp. 87+29 — 58 Encina
Bower, Kendall Myers — Menlo Park — LD 93+23 — Harvard Rd, MP-mp
[5]Bowles, Thomas Kirby — Milwaukee, Wis. — Geol. 156+7 — Zeta Psi
Bowman, Melvin Edward — Palo Alto — Educ. gr. — 347 Ramona-p
B. S., Kansas State Normal, 1918.
[4]Boyd, Adeline H. — San Francisco — LD sp. — Roble
Boyd, Robert Tilford — Harlowton, Mont. — Phyl.-Med. 10-162+86 — 62 Encina
[13]Boyd, Russell Verne — Hooker, Okla. — Law ‡ 6–22 — 171 Emerson-p
[5]Boyd, Walter H. — Palo Alto — Med. gr. — 2019 Webster, SF-sf
A. B., So. California, 1920.
Boyle, Lowell Reed — Ogden, Utah — LD 71+2 — 845 Waverley-p
[12]Boynton, Robert Davis — San Francisco — LD 11-44+58 — Phi Gamma Delta
[234]Bozarth, Elton P. — Long Beach — LD 30+7 — Theta Xi
[23]Bradley, Ernest — San Rafael — LD 26-25+9 — 45 Sequoia
Bradshaw, Robert Vernon — Palo Alto — Bot. gr. — 201 Waverley-p
B. A., Oregon, 1921; A. M., Stanford, 1922.
[13]Bradshaw, Roch William — Orange — Econ. 144+82 — 319 Encina
[5]Bradshaw, William L. — Sacramento — Econ. 10-66+66 — 20 Encina
Bragg, Arthur Dickinson — Carmel — LD 57+23 — Sigma Nu
Brailsford, Beatrice L. — Hagerman, Ida. — LD 42+3 — 108 Roble
Brailsford, Ellen E. — Hagerman, Ida. — LD 79+116 — 110 Roble
Bramkamp, Paul Jay — San Jose — M.E. 134+162 — 281 S. 11th, SJ-sj
[5]Brammer, George Abraham — Stockton — Educ. 102-48+37 — 635 Webster-p
[12]Brandt, Robert Louis — San Mateo — Chem. 104–39 — Kappa Alpha
[4]Branigan, John — Holbrook — Educ. gr. — Kingscote
B. S., Nebraska, 1915.
Brant, Helen Rankin — San Francisco — LD 66+21 — 623 Middlefield-p
Brazil, Abraham Haggberg — Castroville — Law 192+53 — 64 Sequoia
A. B., Stanford, 1922.
[23]Brazil, Valdo Haggberg — Castroville — Law 50-60+9 — Sherman, M-m
Brede, Alexander — Detroit, Mich. — Engl. gr. — 20 Lasuen
A. B., Michigan, 1918.
[1]Breidenbach, Emile W. — San Francisco — LD 29–24 — Phi Kappa Sigma
Breier, Claus John, Jr. — Lewiston, Ida. — Econ. 125+15 — 66 Sequoia
[124]Bresee, Fred, Jr. — Pittsburg, Kans. — Chem. gr. — Kappa Sigma
A. B., Johns Hopkins, 1920.
[234]Briggs, Alexander Woodland — Palo Alto — LD 94+126 — 249 Lowell-p
[4]Briggs, Louis Merle — Corvallis, Ore. — Ed. P.E. gr. — Phi Delta Theta
B. S., Oregon Agricultural College, 1922.

[5]Brill, Selling — Portland, Ore. — Bact. gr. — 1012 High-p
A. B., Stanford, 1920.
Brinkman, Newton — Sacramento — Econ. 122+47 — 53 Sequoia
Broenkow, Herman Walter — Tacoma, Wn. — LD 48+54 — 336 Encina
Brokaw, Hal Rexford — Mayfield — LD 95+40 — Colonial Pl., M-m
[5]Brolyer, Cecil Robert — Stanford Univ. — Chem. 21·105+143 — 9 Dolores
[5]Brooke, James Kenneth — Portland, Ore. — Geol. 47·81+34 — Theta Chi
Brooking, Olive A. — San Francisco — Engl. 181+122 — Delta Delta Delta
A. B., Stanford, 1922.
[12]Brooks, Phillip Terrill — San Jose — LD 50+23 — 76 S. 11th, SJ-sj
[24]Brooks, Robert Jacob — Akron, O. — LD 14+23 — 925 Hamilton-p
[4]Brothers, Edmon Q. — E. Las Vegas, N.M. — Educ. gr. — 324 Emerson-p
A. B., Southwestern College, 1912.
Broughall, Helen K. — Salt Lake City, Utah — LD 47+64 — 270 Roble
Broughton, Beatrice — Oxnard — Fr. 6·128+98 — Kappa Alpha Theta
Brown, Charles Milton, Jr. — Redlands — Hist. 99–28 — 553 Encina
Brown, David Ewald, Jr. — Oakland — LD 52+44 — 90 Sequoia
Brown, Elizabeth — Palo Alto — Sch. Ed. gr. — 469 Homer-p
A. B., Stanford, 1921.
Brown, E. Stanley — Winnemucca, Nev. — LD 89+74 — 4 Sequoia
[4]Brown, Esther Eggers — Riverside — Engl. ‡ — 314 Roble
[23]Brown, Everett — Eureka — Econ. 110+17 — Kappa Alpha
Brown, Fay — American Falls, Ida. — LD 36+12 — 250 Cowper
[1]Brown, Franklin Alvy — Newark — Zool. 74+18 — Sequoia
Brown, George Dewey — Berkeley — Med. gr. — 2543 Dwight Way, B-b
A. B., Stanford, 1921.
Brown, Grace Mary — Aurora, Ill. — Math. 7·141+165 — Delta Delta Delta
Brown, Homer Waldo — Petaluma — Econ. 163+4 — 224 Encina
[1]Brown, James LeM. — Kittanning, Pa. — LD 4–33 — 550 Hamilton-p
Brown, Kenneth Wm. — San Francisco — Chem. 102+40 — Alpha Tau Omega
Brown, Leland Hermon — Gilroy — M.E. 11·171+166 — 18 Encina
A. B., Stanford, 1922.
Brown, Merwyn H. — Winnemucca, Nev. — Law 135+139 — SigmaAlphaEpsilon
[2]Brown, Norton Sager — Stanford Univ. — LD 28+7 — 353 Lowell
Brown, Vance Meachem — Fresno — Chem. 135·48+56 — 38 Sequoia
A. B., Stanford, 1922.
Brown, Walter Roy — Santa Maria — M.E. 95·76+2 — 417 Encina
[1]Brown, Warren Edward — San Mateo — Econ. 20·77+10 — 31 N. D St., SM-sm
[5]Brown, William Carlton — Palo Alto — C.E 22·97+117 — 311 Cowper-p
[5]Brown, William Howard — San Diego — Econ. 125+28 — Phi Delta Theta
Browne, Lafe Todd — Santa Paula — LD 43+14 — Sigma Alpha Epsilon
[5]Browning, Herbert Edward — Palo Alto — Geol. 62+12 — 554 Hawthorne-p
Bruce, George Hickman — Montrose, Colo. — Econ. ‡ 33–2 — Box 627, MP-mp

[5]Brust, Paul R.	San Diego	Med. gr.	2718 California, SF-sf
A. B., Stanford, 1921.			
Bryan, Paul Charles	San Jose	LD 74+79	28 Magnolia, SJ-sj
[4]Bryner, Claude Albert	San Francisco	LD	120 Vicksburg, SF-sf
[3]Buchanan, Dorothy King	Runnymede	LD 30+20	Runnymede-p
[4]Buckham, Stafford	Stanford Univ.	Span. 54·102+8	334 Union
[12]Buckingham, Winthrop	Pasadena	Geol. gr.	126 Encina
B. A., Yale, 1920.			
Bucklin,LouisLapham	Gd.Junction,Colo.	LD 88+14	225 Kipling-p
Buckwalter, John Cassel	Palo Alto	LD 93+123	1511 Waverley-p
[1]Buffum, Dorothy May	Long Beach	Hist. 92+74	Pi Beta Phi
[12]Bugbee, James McKean	Hollywood	Engl. 70·45+13	Sigma Alpha Ep.
Bullis, William Adlai	Los Angeles	LD 4·59+60	Beta Theta Pi
Bullock, James Rae	Los Angeles	LD 48+57	27 Alvarado
[4]Bulman, Francis George	Palo Alto	LD	Palo Alto-p
Bulman, Robert	Palo Alto	Med. gr.	207 Hawthorne-p
A. B., Stanford, 1922.			
Bumbaugh, Harold L.	Los Angeles	M. E. 30·104+11	Phi Kappa Psi
Bundick, Susie Pearl	Jennings, La.	Econ. 135+117	204 Roble
[124]Bundy, Caryl Leonard	Modesto	LD 41+2	324 Encina
[12]Bundy, Robert Gillis	Los Angeles	Econ. 14·118+168	DeltaK.Epsilon
Burbridge, Charles Clair	Tracy	Geol. 203+49	514 Encina
A. B., Stanford, 1922.			
Burch, George W., Jr.	Owensmouth	Law 184+53	328 Encina
A. B., Stanford, 1922.			
Burcham, Henry MacG.	Spokane, Wn.	LD 58+12	4 Sequoia
Burdick, Donald Lowe	San Jose	Econ. 130+104	255 S. 16th, SJ-sj
[5]Burdick, Wm. Elliott	Minneapolis,Minn.	LD 95+81	326 Encina
Burdick, William Leroy	Palo Alto	Chem. gr.	1740 Middlefield-p
A. B., Kansas, 1909; A. M., 1912.			
[4]Burford, Ruby J.	Chula Vista	Educ. gr	208 Roble
A. B., Stanford, 1921.			
Burgess, Carleton Lyle	Hollywood	Econ. 40·65–2	Chi Psi
Burgess, Keith	Pomona	LD 36+7	375 Everett-p
Burgess, Ralph Norman	Dover, N.H.	C.E. sp. 5·30–7	60 Encina
[5]Burgher, Charles Clifford	Rupert, Ida.	Geol. 135·63+36	427 Encina
[5]Burke, Donald Vincent	Berkeley	Med. gr.	2530 College, B-b
A. B., Stanford, 1921.			
[1]Burke, Edmund Francis	Santa Barbara	Law 133–20	846 Ramona
[4]Burke, Harry Axel	Gothenburg, Neb.	Educ. gr.	223 Cowper-p
B. A., Idaho, 1917.			
Burke, Harry Eugene	Palo Alto	Ent. gr.	603 Lytton-p
B. S., Washington State College, 1902.			
[124]Burkhard,WilliamGeorge	SanFrancisco	Phyl. 125+98	31 Encina
[23]Burks, Virginia	Venice	Econ. 90·32+28	244 Roble

Burlingame, E. Mildred	Stanford Univ.	LD 46+74	24 Alvarado
Burmister, Robert Gage	San Francisco	Econ. 93·91+48	208 Encina
A. B., Stanford, 1922.			
Burnett, Clarence Irvin	Ely, Nev.	Pre-Med 45·90+84	127 Encina
Burnett, Harold	Portland, Ore.	LD 83·53+64	408 Encina
[234]Burnett, Robert	El Paso, Tex.	LD 40·39+43	Kingscote
[12]Burns, Frederick J.	Calgary, Alta., Can.	Geol.135·50+26	University Hotel-p
[5]Burns, Joseph Paul	New York City	Econ. 135·45+0	Lasuen & Co. Rd.
Burntrager, Helen	Hollywood	Econ. gr.	184 Roble
A. B., Stanford, 1922.			
[5]Burr, Susan Sophia	Pawling, N. Y.	Econ. gr.	Madroño
A. B., Vassar, 1920.			
Burrell, Emelia	Los Angeles	LD 46+37	158 Roble
Burroughs, John H.	Manchester, N. H.	Econ. 91·45+22	358 Homer-p
[4]Bursch, James F.	Buffalo, Kans.	Educ. gr.	287 S. 5th, SJ-sj
B. S., Kansas State Normal, 1920.			
Bush, Frederic Andrew, Jr.	Silver C'y, N.M.	LD 51–16	832 Kipling-p
Bush, Loren Smith	Boise, Ida.	M.E. 148+135	424 Encina
[3]Bussing, Nairne	San Francisco	LD sp. 4–10	University Hotel-p
[4]Butler, Blanche Morton	San Luis Obispo	Educ. gr.	Roble
B. S., University of Chicago, 1909.			
[23]Butler, Clarice Eugenia	Palo Alto	LD 15·44+28	121 Emerson-p
Butler, Edward William	San Diego	M.E. 120+11	33 Sequoia
[234]Butterfield, Lander Westgate	Pasadena	Law gr.	282 University
A. B., Northwestern, 1919.			
[12]Buttrey, Adelbert John	Craigmont, Ida.	LD 66+30	Chinese Club
[12]Bye, Siegurd Edward	Portland, Ore.	LD 36+20	209 Addison-p
Byl, Donald Hennegen	San Jose	M.E. 7·151+227	205 Encina
Cady, Bertha Chapman	Stanford. Univ.	Ent. gr.	7 Alvarado
A. B., Stanford, 1895, A. M., 1902.			
[5]Cahen, Robert Paul	San Francisco	Law 154+22	215 Encina
Cailleau, Armand M.	San Francisco	LD 47+23	304 Encina
Cain, Brighton Clark	Salt Lake City, U.	Ent. 8·123+167	359 Encina
Cairns, Earl Watson	Pasadena	LD 49–17	Alpha Delta Phi
[1]Caldwell, Dave Lynam	San Mateo	Geol. 24·161+89	Theta Xi
A. B., Stanford, 1922.			
Caldwell, Worth Wilson	Portland, Ore.	LD 57+11	Sigma Alpha Epsilon
[12]Calhoun, Katherine Sperl	Seattle, Wn.	LD 69+14	Kappa Alpha Theta
[23]Calin, Felix	Green Island, N.Y.	LD 13·37+29	Base Hospital
Callander, Ellen	Fargo, N. D.	LD 51+71	160 Roble
Calvin, George F.	Washington, D. C.	Pre-Clin. 93·92+28	557 Encina
A. B., Stanford, 1922.			
Cameron, Donaldine	San Francisco	Engl.108+26	Kappa Kappa Gamma
Cameron, Francis	Salt Lake City, U.	LD 23·75+19	Phi Kappa Sigma

Cameron, Harold William	Aberdeen, Wn.	LD 48+52	308 Encina
[23]Cameron, John Donald	Petaluma	LD 53+10	353 Encina
Cameron, Meribeth Elliott	Santa Monica	LD 46+80	172 Roble
[4]Cammack, Ira I.	Kansas City, Mo.	Educ. gr.	Roble
A. B., Earlham, 1884.			
[4]Camp, Jerry Pierpont	Hattiesburg, Miss.	Econ. ‡	Sigma Chi
Campbell, Edward Strong	Oakland	LD 92+45	Chi Psi
[4]Campbell, Ian J.	San Mateo	LD 20–4	403 A St., SM-sm
Campbell, John Donald	San Francisco	LD 77–7	Alpha Delta Phi
[12]Campbell, John Frank	Pasadena	LD 37·33+8	343 Cowper
Campbell, Mary Edna	Escalon	Span. gr.	252 Roble
A. B., Stanford, 1922.			
[12]Campbell, Ralph Diedrich	San Jose	Law 147+24	Alpha Tau Omega
[1]Canning, John Bennet	Palo Alto	Econ. gr.	1535 Bryant-p
Ph. B., Chicago, 1913.			
[12]Cannon, Leonard	Palo Alto	LD 44+54	301 Addison-p
Cannon, Louise Amidon	Palo Alto	Pre-N. 154+127	301 Addison-p
[1]Cantor, Jacob Joseph	Menlo Park	Pre-Med. 69·46+43	54 Sequoia
Cantrell, Tilman Bethel	Benton, Ill.	Law gr.	Kingscote
B. A., George Washington, 1921.			
[1]Cappa, Victor Emanuel	San Jose	Pol. S.-Law 89+2	228 Encina
[1]Carbonell, Francisco K.	Bacnotan, Un. P.I.	Geol. 92–23	705 Cowper-p
Card, George Holt	Denver, Colo.	Econ. 78·32+20	Chi Psi
Cardoza, Alfred Thomas	Palo Alto	LD 22·38+20	760 Homer-p
[12]Carey, Clarence William	Palo Alto	LD 34–25	361 Lytton-p
Carey, George Edw.	Palo Alto	LD ‡ 56–6	361 Lytton-p
[23]Carle, Jackson Tyler	Lindsay	LD 79+76	Delta Chi
[5]Carlsmith, Margaret E.	Hilo, Hawaii, T.H.	Med. gr.	184 Roble
A. B., Stanford, 1922.			
Carlson, Everett	San Francisco	Med. gr.	French Hosp., SF-sf
A. B., Stanford, 1920.			
Carlson, Osborn Herman	Kingsburg	C.E. 133+77	415 Encina
[12]Carman, Helen Amesbury	San Jose	Hist. 91+17	Kappa Kappa Gamma
[23]Carnahan, Kenneth Emerson	San Jose	LD 57+8	Chi Psi
[1234]Carpenter, Cyrus Clay, Jr.	Palo Alto	Hist. 45·139–3	1125 Ramona-p
[4]Carpenter, Francis T.	Gilbert, Ariz.	Educ. gr.	38 Sequoia
A. B., Arizona, 1921.			
[5]Carr, Harold Ellsworth	Los Angeles	LD 30–17	947 Waverley-p
[5]Carrey, Albert Adolph, Jr.	Gilroy	Geol. 141+19	8 Union
[1]Carroll, Mabel Agnes	San Jose	LD60+58	W'msRd.R2Bx103SJ-sj
Carskadon, Thomas R.	Keyser, W. Va.	Engl.-Jn. 57·125+221	Cowper Ct.
A. B., Stanford, 1922.			
Carson, Carlton Mann	Palo Alto	Geol. 45·162+76	1044 Bryant-p
A. B., Stanford, 1922.			

[4]Carson, Charles Allen — Tucson, Ariz. — Educ. gr. — 38 Sequoia
A. B., Arizona, 1921.
Carswell, Stuart Randall — Elsmere, Del. — Hist. gr. — Union
B. S., Delaware State College, 1913; A. B., Stanford, 1922.
[124]Carter, Charles Vance — Oakland — LD 52+3 — Delta Tau Delta
[1]Carter, Harley Roswell — Berkeley — M.E. 10·44+0 — 304 Encina
[4]Cartwright, Dorothy H. — San Gabriel — LD — 330 Roble
Carvell, Margaret George — El Centro — LD 68+60 — 301 Roble
Carver, Keath Langhenry — Los Angeles — LD 43+48 — 318 Lincoln–p
Carver, Lloyd Charles — Trident, Mont. — LD 91+44 — 225 Encina
[5]Carver, Roy William — Artesia — Econ. 10·113+15 — Sigma Alpha Ep.
Cary, Lucy Virginia — San Leandro — Educ. gr. — Madroño
A. B., Mills, 1921.
[1]Cary, William Sayre — Mandan, N. Dak. — Chem. 186+5 — Theta Xi
A. B., Stanford, 1922.
Case, Nelson Perry — Palo Alto — LD 57+95 — 347 Ramona-p
[234]Cassel, Chester — Los Angeles — Geol. 50·86+93 — Chinese Club
[4]Cassidy, John Vincent — Crystal Falls, Mich. — Educ. ‡ — Kingscote
Castleman, Gordon L. — Salt Lake City, U. — Geol 26·172+21 — Phi Kappa Sigma
A. B., Stanford, 1922.
Castleman, Paul Roy — San Jose — Engl.-Jn.181+21 — 676 Spencer, SJ-sj
A. B., Stanford, 1922.
[5]Caughey, Beatrice — Ukiah — Law gr. — Chi Omega
A. B., Stanford, 1922.
Cavanaugh, Robert Daniel — Los Angeles — LD 45·47+45 — Chi Psi
Cavanaugh, William Joseph — San Mateo — Geol. 59–20 — Delta Tau Delta
[34]de Cazotte, Michel Marie — Palo Alto — LD ‡ 7–6 — 343 Middlefield-p
[1]Cecil, Calvert Lee — Grimes — Hist. 66–15 — Theta Delta Chi
[1]Cerruti, Edvidge Mary — Los Gatos — Span. 180+257 — 219 Roble
A. B., Stanford, 1922.
[1]Challender, Harry M. — Robertson, Wyo. — LD 10–2 — P A. Community House-p
Chalmers, Harry Hollis — Salt Lake City, U. — LD 14·69–29 — Kappa Alpha
[5]Chamberlin, Marvin G. — Salt Lake City, U. — Econ. 169+41 — Kappa Alpha
Chamberlain, Robert Stoner — Palo Alto — LD 45+50 — 706 Cowper-p
[1]Chamberlin, Cecil Fayette — Los Gatos — LD 48–28 — Hotel Alexandria-p
[5]Chamberlin, Joseph C. — Salt Lake City, U. — Ent. sp. 45·90+99 — Lobata Lodge
Chan, Gumdock — San Francisco — Chem. 9·173+55 — 405 Emerson-p
A. B., Stanford, 1922.
[12]Chance, Oliver W. — Denair — C.E. 96·41–8 — 247 Encina
Chandler, Charles T., Jr. — San Diego — LD 88+14 — Phi Delta Theta
Chandler, Loren Roscoe — Fresno — Med. gr. — 2299 Sacramento, SF-sf
A. B., Stanford, 1930.
[1]Chandler, Norman — Los Angeles — Econ. 102–15 — Delta Kappa Epsilon
[23]Chaney, Mary Catherine — San Jose — LD 62+93 — 101 Roble

[4]Chang, Tao Piu	Changtu, West China	Educ. gr.	Chinese Club
A. B., West China Union University, 1920.			
[4]Chantry, Kenneth Neal	Los Angeles	LD	Alpha Tau Omega
[4]Chapman, Earl	Palo Alto	Ed. P.E. gr.	
B. S., Oregon Agricultural College, 1922.			
[4]Chapman, Helen Hawley	Alma	LD	230 Roble
Chappellet, Felix, Jr.	Los Angeles	LD 8–12	Stanford Rooms
[4]Chaquette, Marion Camille	Palo Alto	LD	375 Coleridge-p
Charles, Allan Earle	Palo Alto	LD 44+56	251 Lincoln-p
[1]Charles, Benjamin Cliffe	Los Angeles	LD 52–18	Alpha Delta Phi
[1]Charles, Martin Allen	San Francisco	LD 15+17	557 Hamilton-p
Charles, Shirley Weston	Palo Alto	Fr. 140+101	251 Lincoln-p
[23]Charlot, Leon Elliot	Alameda	Geol. 48–16	Theta Xi
Chase, Don Marquis	Atascadero	LD 2·91+54	Chinese Club
[4]Chase, Grace Elizabeth	Stanford Univ.	LD	246 Roble
[12]Chase, Howard Stephen	San Jose	LD 44+43	Delta Tau Delta
Chase, Mary Katherine	Stanford Univ.	Econ.-Law 45·140+267	246 Roble
A. B., Stanford, 1922.			
Chedister, Arthur William	Lemoore	LD 57–4	28 Sequoia
[3]Cheu, Henry Doc	San Francisco	LD 15+6	1022 Waverley-p
[34]Chevalier, Ragnhild M.	Berkeley	Fr. gr.	7 Alvarado
A. B., Stanford, 1921.			
[234]Chi, Kuo Liang	Ningtsin, China	Educ. 135·26+8	4 Salvatierra
Chilcote, Russell Cooper	Fostoria, Ohio	Med. gr.	231 Union
A. B., Stanford, 1921.			
Childers, Leland Alonzo	Santa Cruz	Zool. 180+33	444 Encina
A. B., Stanford, 1922.			
[5]Chisholm, Albert George	San Francisco	Zool. 90+12	4242 20th, SF-sf
Chittenden, Russell Dean	Fresno	LD 34–24	25 Sequoia
[2]Choate, Walter Joseph	Los Angeles	Law ‡ 7–7	111 Encina
Chorbajian, Albert Kalem	Fresno	Med. gr.	2321 Sacramento, SF-sf
A. B., Stanford, 1921.			
[5]Chrisman, Herman Henry	San Jose	Hist. 7·158+154	119 Encina
[2]Christenson, John Baxter	Hayward	LD ‡ 16+3	353 Encina
[1]Christianson, Arthur Bernhart	Moro, Ore.	M.E. ‡ 15–14	512 Lytton-p
Christie, Howard Chandler	Los Angeles	Econ. 98+27	Delta Kappa Epsilon
von Christierson, Frank F.	San Jose	Psych. 8·147+143	49 Encina
[1]Chuck, Ah Fong	Honolulu, T. H.	Econ. 45·135+51	Chinese Club
A. B., Stanford, 1922.			
[5]Chuck, Faw Yap	Canton, China	Chem. 75·88+20	Chinese Club
Churchman, Hazel Vera	Santa Rosa	Zool. 143+204	254 Roble
[12]Chute, George Roger	Two Rivers, Wn.	Econ.-Law 134·47–2	365 Lincoln
Claflin, Paul Cuddeback	Los Angeles	Econ. 78·78+16	Phi Delta Theta

Clancy, Edward Bischoff	San Diego	LD 47·60+10	Phi Kappa Sigma
Clancy, Marion Alice A. B., Stanford, 1922.	Riverside	Econ. 180+232	Pi Beta Phi
Clapp, Edwin Roosa	Santa Rosa	Engl. 121+226	87 Sequoia
[4]Clapp, Madge A. B., Upper Iowa University, 1920.	Santa Rosa	Hist. gr.	176 Roble
[1]Clark, Alfred Fuller	Rivera	LD 4–15	465 Hamilton-p
Clark, Alvan Witcombe A. B., Stanford, 1915.	San Jose	Sch. Ed. gr.	341 Columbia, M
Clark, Bruce Proctor A. B., Stanford, 1922.	Chico	Ed.-P.E. 135·45+20	Los Altos-p
Clark, David Bridgman	Stanford Univ.	LD 43+17	4 Cabrillo
Clark, Donald Eastman	Stanford Univ.	LD 49+34	4 Cabrillo
Clark, Dorothea Miller A. B., Stanford, 1922.	Los Angeles	Ed.G.A. 17·168+174	Chi Omega
[4]Clark, Dorothy L.	Petaluma	Hist. ‡ 6–2	220 Roble
[1]Clark, Edgar Waite	Pawnee, Okla.	LD 13+5	244 Encina
Clark, Esther Bridgman A. B., Stanford, 1921.	Stanford Univ.	Med. gr.	3014 Clay, SF-sf
Clark, Everett Leonard	Fresno	C.E. 90·47+14	405 Encina
Clark, George Dickson	Menlo Park	C.E. 136+117	Box 184, MP-mp
Clark, George Stuart A. B., Stanford, 1922.	Stanford Univ.	M.E. 186+230	Delta Upsilon
[5]Clark, Helen Osgood	Stanford Univ.	Fr. 46·119+165	1121 Bryant
Clark, Howard Marshall	Ashland, Ohio	Econ. 108+8	656 Channing
[12]Clark, Joseph Edward	Los Angeles	LD 36–23	Zeta Psi
Clark, Leslie Madison	Sawtelle	LD 4·101+89	138 Encina
Clark, Mary Jane A. B., Stanford, 1922.	Los Angeles	Engl.-Jn.66·153+132	Kap.Al.Theta
[2]Clark, Newton	Hood River, Ore.	M.E. 47–40	407 Encina
Clark, Orion Frederick	Los Angeles	LD 95–11	349 Encina
[4]Clark, Pauline	Duncan, Okla	LD	148 Roble
Clark, Philip Corriston A. B., Stanford, 1921.	Stanford Univ.	E.E. gr.	Delta Upsilon
[2]Clark, Phyllis Marjorie	Spokane, Wn.	LD 5–4	324 Roble
[5]Clark, Wilfred Sterling A. B., Stanford, 1921.	Palo Alto	Med. gr.	2019 Webster, SF-sf
Clark, William A., Jr.	Los Angeles	LD 33+0	61 Sequoia
[5]Clarke, Bonita Fravel	San Jose	Hist. 118+32	Box 543, SJ-sj
[3]Clarke, James Fravel	San Jose	LD 14–2	Box 543, SJ-sj
Clarke, R. Thurmond	Los Angeles	LD 47–38	Zeta Psi
[12]Classen, Willard John A. B., Stanford, 1922.	Menlo Park	Geol. gr.	Theta Xi
Clayton, Willis Sherman, Jr.	San Jose	LD 51–7	Phi Kappa Psi

Cleaveland, Loraine	Berkeley	LD 36·42+18	166 Roble
Cleaveland, Norman	Berkeley	M.E. 123–7	Sigma Chi
[4]Clement, Evelyn A.	Sacramento	C.Lit. (Lat.) gr.	459 Hamilton-p
A. B., College of the Pacific, 1909.			
[2]Cleveland, Acton Meek	Camptonville	LD 28–6	523 Cowper
Clevidence, Thaddeus Oscar	Los Angeles	Law ‡ 28–30	Phi Kappa Psi
[5]Clifford, Connell	Kewanee, Ill.	Econ. gr.	115 Everett-p
A. B., Stanford, 1922.			
[1]Clunie, Helen	Menlo Park	Fr. 71+0	Menlo Park
[5]Clyde, Paul Hibbert	Victoria, B. C.	Hist. gr.	640 Waverley
A. B., Stanford, 1921.			
Clymer, Eugene Walter	Yuma, Ariz.	LD 33–10	636 Gilman-p
Coakley, Clyde Edwards	Spokane, Wn.	C.E. 10·141+93	507 Encina
Cobb, Miles	Pasadena	LD 46–18	Alpha Delta Phi
[5]Coblentz, Herbert Cerf	Stockton	Law gr.	40 Encina
A. B., Stanford, 1921.			
[12]Coblentz, Richard	San Francisco	LD 50+15	17 Encina
[4]Coburn, Adelaide March	Mayfield	Engl. gr.	160 Roble
A. B., College of the Pacific, 1918.			
[5]Cochrell, Max	Wichita, Kans.	Econ. gr.	11 Salvatierra
A. B., Stanford, 1921.			
Cody, Bernard Anthony	Long Beach	Med. gr.	Y.M.C.A., SF-sf
A. B., Stanford, 1921.			
Coffman, Fred	Springville, U.	C.E. 135·50+32	15 Encina
A. B., Stanford, 1922.			
[12]Cohan, Aaron David	San Francisco	Econ. 65·62+56	575 Lincoln
[12]Cohen, Aaron Norman	Portland, Ore.	Law 34·196+70	445 Encina
LL. B., Stanford, 1922.			
Cohen, John Walter, Jr.	Los Angeles	Econ. 111·69+26	302 Union
A. B., Stanford, 1922.			
Cohen, Marjorie	Carson City, Nev.	LD 82+4	165 Roble
Cohen, Mark Madison	Portland, Ore.	Hist.-Law 46·138+208	560 Encina
A. B., Stanford, 1922.			
[12]Cohn, Arthur Cardinet	San Francisco	LD 29+29	229 Encina
[12]Cohn, Dave Solis	Spokane, Wn.	Geol. 184+136	427 Encina
A. B., Stanford, 1922.			
Cohn, Laurence Ted	San Francisco	LD 57+25	229 Encina
Colby, George Wilbur	Oakland	LD 44+1	421 Harvard, M
Cole, Frank Raymond	Redlands	Ent. gr.	319 Union
A. B., Pomona, 1913; A. M., Stanford, 1921, Ph. D., 1922.			
Cole, Sidney Walker	Sacramento	LD 27–25	51 Sequoia
[1]Coles, George Raymond	San Jose	Chem. 74–13	80 S. 11th, SJ-sj
[5]Colfelt, Natalye Adelma	Glen Loch, Pa.	Pol.S. gr.	Madroño
A. B., Vassar, 1921.			
[234]Colgan, Eugene Cyril	Elyria, Ohio	Econ. ‡ 21+8	Delta Tau Delta

[1]Coll, Daniel A. B., Stanford, 1920.	San Francisco	Med. gr.	2401 Sacramento, SF
Collett, Charles Elmer	San Francisco	LD 60+22	Delta Tau Delta
[4]Collier, Josephine	Leavenworth, Kans.	LD	Roble
[4]Collier, Myrtie B. S., University of Chicago, 1912.	Los Angeles	Math. gr.	308 Roble
[5]Collins, Erle LeRoy A. B., Stanford, 1922.	Palo Alto	Chem. gr.	635 Homer-p
[2]Collins, George Ainslie A. B., Stanford, 1922.	Stanford Univ.	Geol. 32·152+42	Zeta Psi
Collins, Junior Jennings	Los Angeles	LD 94–9	30 Sequoia
[12]Collins, Walter William A. B., Stanford, 1919.	Dawson, Y. T.	M.E. gr.	207 Encina
Colton, John Henry	Stanford Univ.	C.E. 172+13	320 Encina
Colvin, Timothy Edward	Piedmont	LD 6·90+6	Phi Gamma Delta
[4]Combs, William Hooper	Los Angeles	Law 76·122–12	Beta Theta Pi
Comparet, Bertrand Lewis	San Diego	LD 40·54+19	35 Sequoia
Compton, Russell Leslie	San Diego	LD 49·45+12	105 Encina
Comstock, Wm. Sears A. B., Stanford, 1922.	Alhambra	Geol. 51·132+15	Zeta Psi
Conard, Harold Shaver	San Diego	C.E. 136+120	Delta Chi
Conard, Mildred Rovena	San Diego	LD 89+79	Pi Beta Phi
[5]Condit, William Clyde	Oakland	Hist. 45·128+6	208 Encina
Connolly, Edward Holland	San Francisco	LD 22–16	550 Addison-p
Connolly, John Briggs	San Francisco	LD 103+87	550 Addison-p
Connolly, Robert Cottman A. B., Stanford, 1922.	Los Angeles	M.E. 185+56	320 Encina
Connolly, Thos. Edward, Jr.	Stockton	LD 25–4	Theta Chi
Connor, Thomas Arthur	Long Beach	LD 42–18	171 Emerson-p
[4]Conolly, Elizabeth N. A. B., Goucher, 1921.	Brooklyn, N. Y.	Law gr.	303 Roble
[5]Conover, Arthur Brooks	Orange N. J.	LD 45+68	737 Bryant-p
Conron, Calvin Halsey, Jr.	Modesto	LD 46+14	430 Encina
[12]Constant, Shelby Andrew	Buhl, Idaho	LD 58–19	115 Encina
[4]Cook, Adella B. S., California, 1908.	Burlingame	Chem. gr.	522 Almer Road, B-b
[4]Cook, Clyde Daniel A. B., State College of Washington, 1920.	Asotin, Wn.	Educ. gr.	Sigma Chi
[4]Cook, Edward Irwin	Sacramento	Pol.S. 15+21	61 Sequoia
[4]Cook, Ella Gertrude B. L., California, 1903.	Burlingame	Engl. gr.	522 Almer Road, B-b
[5]Cook, Lawrence Harvey A. B., Stanford, 1921, A. M., 1922.	Palo Alto	M.E. gr.	157 Bryant-p
Cook, Robert Chambers	Ocheyedan, Ia.	LD 49+24	105 Encina

[4]Cooke, John Daniel	Los Angeles	Engl. gr.	310 Waverley-p
A. B., Stanford, 1914, A. M., 1915.			
Cooke, William Clifford	Palo Alto	Med. gr.	Sigma Chi-p
A. B., Stanford, 1922.			
Cookerley, William Noah	So. Milford, Ind.	LD 64–23	455 Forest-p
Cooley, Walter H.	Palo Alto	Law 98·85+84	201 High-p
Cooper, Lloyd Edward	Roseville	LD 93+69	52 Sequoia
[4]Cooper, Roger Joseph	San Francisco	LD	332 Union
[4]Cooperrider, Albert Owen	Arcata	Engl. gr.	11 Salvatierra
A. B., Colorado, 1904.			
[34]Coovert, Dean Johnson	Portland	Law 85·14+3	551 University-p
Copeland, Ivo	Los Angeles	Engl. 132+94	Kappa Alpha Theta
[1]Coplen, James Ballou	Corona	LD ‡ 13–15	Delta Chi
Coplen, John Wiley	Corona	Econ. 180+32	Delta Chi
A. B., Stanford, 1922.			
Coppock, Kenneth R.	Sampsonton, Alta, Can.	LD 45·46+29	139 Encina
Coppock, Ralph C.	Sampsonton, Alta, Can.	LD 45·46+17	139 Encina
[4]Corbett, George Austin	Eureka	Law ‡	Theta Xi
[5]Corby, Grant White	Stanford Univ.	Geol. gr.	Alpha Tau Omega
A. B., Stanford, 1922.			
[4]Corcoran, Agnes	San Francisco	Hist. gr.	Alpha Kappa Lambda
A. B., California, 1920.			
[12]Corey, Augusta Eleanor	Palo Alto	Ed.G.A.44·41–16	909 University-p
Cornell, Elton Fred	Sunnyvale	Chem. 127+166	Alpha K. Lambda
Cornell, Mildred Verele	Sunnyvale	Engl. 182+150	Sigma Kappa
A. B., Stanford, 1922.			
Cornes, Mary Lida	San Jose	Lat. gr.	365 Roble
A. B., Stanford, 1922.			
Cornish, Herbert J., Jr.	Denver, Colo.	Econ. 180+75	Delta Upsilon
A. B., Stanford, 1922.			
Costello, Lorenz V.	Eau Claire, Wis.	Econ. ‡ 40+9	Kingscote
Cota, Florencio M.	Jerome, Ariz.	M.E. 180+43	316 Encina
A. B., Stanford, 1922.			
Cottrell, Lillian	Hebron, Neb.	LD 110+128	150 Roble
[1]Couch, Leon Woodbury	San Jose	LD 14–16	313 S. 10th, SJ-sj
[5]Coulter, James Scholl	Frankfort, Ind.	Econ. 47·77–2	54 Sequoia
Coulthurst, Lawrence Joseph	San Diego	Chem. 79·61–5	Phi Kappa Sigma
Coverley, Harvey Mills	Los Angeles	LD 90+79	113 Encina
Covey, Frederick Arthur	Stanford Univ.	M.E. 157+190	85 Sequoia
Cowan, Clarence Bert	Fresno	Med. gr.	2869 Clay, SF-sf
A. B., Stanford, 1919.			
[3]Cowdery, Karl Montague	Whittier	Educ. gr.	214 Union
A. B., Oberlin, 1915; A. M., Stanford, 1922.			
Cowell, Ray Theodore	Mt. Vernon, Wn.	Hist. 15·180+10	225 Encina
A. B., Stanford, 1922.			

[5]Cowing, Ralph Huffaker	Carson City, Nev.	Law 176–3	Chi Psi
[34]Cox, Catharine Morris A. B., Stanford, 1912, A. M., 1913.	San Jose	Psych. gr.	24 Alvarado
[134]Coyle, Daniel Kenneth	San Jose	M.E. sp. 97+4	528 S. 2d, SJ
Craig, Harold Carter	Willows	M.E. 158–1	359 Emerson-p
[5]Craig, Joseph Allen	Oakland	Phyl. 143+70	Kappa Sigma
[5]Craig, Wallace A. A. B., Stanford, 1922.	Great Falls, Mont.	Chem. gr.	Alpha Sigma Phi
Cramer, Dorothy A. B., Stanford, 1922.	Palo Alto	Econ. 4·180+220	675 Channing-p
Cramer, Edwin Glenn	Santa Monica	LD 52–14	24 Sequoia
Crandall, Kenneth Hartley	Los Angeles	LD 94+109	Phi Kappa Sigma
Crandall, Richard Robbins	Los Angeles	Geol. 47·104+152	PhiKappaSigma
[13]Crandall, Shannon, Jr.	Los Angeles	LD 41–5	Alpha Delta Phi
[1]Crane, Rollin R.	San Diego	LD ‡	127 Encina
[1]Crane, Walter T.	Bertrand, Neb.	LD 2–12	1201 Palo Alto, M
Cranson, Lorin Alvin A. B., Stanford, 1922.	Sebastopol	Geol. 184+169	530 Encina
[124]Crase, Herbert Richard	Los Angeles	Phyl. 102·36+18	436 Hamilton-p
[5]Craven, Leonard T.	Spokane, Wn.	Law 36–10	315 Union
Craven, Wilson	Bellingham, Wn.	LD 89+125	538 Encina
Cravens, Robert Irving	Los Angeles	Econ. 72+1	Zeta Psi
Crawford, Albert Hartley	Los Angeles	LD 42·31+5	Sigma Chi
[5]Crawford, Alonzo Lawson	Stanford Univ.	Law 44·122–2	219 Encina
[12]Crawford, Caspar Glenn	Dickenson, N.D.	LD 57+15	55 Sequoia
§[12]Cray, George Oliver	South Pasadena	LD ‡ 33+14	137 Encina
[4]Creager, John Oscar M. A., Yale, 1899.	Tucson, Ariz.	Educ. gr.	Kingscote
[1]Creed, John Hedley	Oakland	LD 49–30	249 Encina
Creglow, Loran Andrew A. B., Stanford, 1922.	Menlo Park	Geol. 15·180+141	Menlo Park-mp
[23]Creighton, Victor Edwin	Lima, Peru	LD 61–24	Phi Gamma Delta
[5]Crever, Dorothy Rose A. B., Stanford, 1921.	San Jose	Math. gr.	304 Roble
Crever, Fred Emanuel	San Jose	LD 51+97	14 Broadway, SJ-sj
[23]Crist, Frank Lee	Orlando, Fla.	LD 35·33+38	Grant Rooms, Univ.
Crobaugh, Alva Bernard	Mayfield	LD 60+73	Mayfield-m
Crobaugh, Mervyn A. B., Stanford, 1919, A. M., 1920.	Mayfield	Econ. gr.	Mayfield-m
[4]Cromer, George Edwin	Ft. Worth, Tex.	LD	Sigma Chi
[4]Cronin, M. Alice A. B., Stanford, 1921.	San Jose	Educ. gr.	190 S. 7th, SJ-sj
Crook, Oliver Lawson	Oakland	LD 44–5	403 Encina

§ Deceased February 19, 1922.

Crosby, Katherine Lee Hayward Econ. 45·135+100 Pi Beta Phi
A. B., Stanford, 1922.
[23]Cross, Charles Burton Merced LD 71–11 721 Waverley-p
Cross, Robert John Mayfield Chem. gr. Evergreen Park, M-m
A. B., Stanford, 1911, A. M., 1920.
[4]Crow, Loy W. Maxwell LD ‡ 28–9 Zeta Psi
[1]Crowe, Earle Edward Porterville Econ. 3·183+26 Delta Tau Delta
A. B., Stanford, 1922.
[12]Crowell, J. Irving Los Angeles LD 55–20 Alpha Tau Omega
[12]Crump, Ross Owen San Jose LD 61+84 Rt. 2, Box 330, SJ-sj
[4]Crutcher, Ruth Cary Palo Alto Engl. 59· 531 Cowper-p
[5]Cuddeback, Murray William Monolith LD 21–11 Zeta Psi
[4]Culbert, Edwin Charles Eveleth, Minn. Educ. gr. 68 Sequoia
A. B., Minnesota, 1920, A. M., 1921.
[234]Culkin, Edmund A. Colorado Spgs., Colo. Geol. 114·77+20 Union
A. B., Stanford, 1922.
[234]Culp, George Joseph Pacific Grove LD 7·69+62 127 Encina
Cundall, Kenneth Newton Alameda Chem. 141+41 120 Encina
Cunha, Marion Buckley San Francisco Law 167+119 Alpha Delta Phi
[1]Cunningham, McDowell San Francisco Econ. 45–17 127 Encina
Cupid, Albert William Watsonville Law 145+20 527 Encina
[12]Currence, John DePaul Tiffin, Ohio Pre-Med. ‡ 23–6 11 Salvatierra
[1]Curtis, Eugene Alden Rochester, N. Y. Econ. 91·89+31 427 Webster-p
A. B., Stanford, 1922.
[1]Curtis, Rowen Doust Pittsburgh, Pa. Chem. 82+42 Alta Mesa
Cuthbertson, Grace Pearl Mill Valley Econ. 181+76 324 Roble
A. B., Stanford, 1922.
[5]Cutler, Harmon Edgar Endicott, Wn. Law 129·49+3 445 Hamilton-p
[23]Cutler, Herbert Holley Hollywood Econ. 84–47 Phi Kappa Sigma
Dagg, Hueston William San Diego M.E. 135·45+20 223 Cowper-p
A. B., Stanford, 1922.
Dahler, Dorothy Inez Woodland LD 44+26 203 Roble
[4]Dailey, Elizabeth M. Tehama LD ‡ 9 Palm, SF-sf
[12]Dailey, Gardner Acton Long Beach Ent. 75·37+74 Union-p
Dale, Helen Lois Palo Alto Bot. gr. 1022 Forest Court-p
A. B., Stanford, 1921.
Dallas, Donald A. Redlands Zool.-Med. 63·127+50 Sigma Chi
[4]Dallas, Madelaine M. Modesto Educ. ‡ Roble
Dalton, Paul Jackson Malin, Ore. LD 24–12 Theta Chi
[23]Daly, Charles Francis Eureka LD 45·41+24 228 Union
[23]Daly, William Lawrence Maxwell LD 26–23 302 Encina
[4]Damon, Robert Elbridge Fortuna Ed.P.E. gr. Sigma Alpha Epsilon
B. S., Oregon Agricultural College, 1921.
[234]D'Andrea, Martino Angelo Italy LD sp. 10·21+6 105 Encina

Dannenbaum,MildredD.	Parsons,Kans.	LD 78+50	226 Roble
[4]Dannenberger, Charles O.	Bisbee, Ariz.	Educ. ‡	360 Addison
[1]Darke, Frederick E.	San Luis Obispo	Econ. 87·93+64	237 Encina
A. B., Stanford, 1922.			
Darling, Herbert Henry	San Francisco	Phyl.-Med. 9·182+153	11 Union
[2]Da Roza, Frank Leal	Sacramento	Law ‡	Ramona Apts.-p
Darrah, Guard Clement	Lodi	Law gr.	515 Waverley-p
A. B., Stanford, 1920, J. D., 1922.			
[34]Darsie, Marvin Lloyd	Los Angeles	Educ. gr.	360 Addison
B. S., Hiram College, 1908; A. M., Stanford, 1913.			
[5]Daugherty, Lyman Harry	Robinson, Ill.	LD 42+31	454 Forest-p
[5]David, Leon Thomas	Vallejo	LD 59+49	422 Encina
[4]Davidson,HelenPye	N.Westminster,B.C.	LD	219 Roble
Davidson, Kenneth Mowbray	Boise, Ida.	LD 34–25	Theta Delta Chi
Davidson, Roland G.	Bethany, Conn.	LD 45·42+18	11 Sequoia
Davidson, William O.	Santa Barbara	LD 46+35	Delta Upsilon
Davies, David Lloyd	Portland, Ore.	LD 48+33	30 Sequoia
Davies, James M.	Los Angeles	Econ. 138+60	Union
[5]Davis, Archibald Wilson	Nutley, N. J.	Econ. 82·47+9	820 Cowper-p
[23]Davis, Eugene Lewyn	Santa Maria	Geol. 45·157+88	554 Encina
[1]Davis, George E. W.	Berkeley	Law 82·34–13	441 Emerson-p
[34]Davis, Harold Hess	Salt Lake City, U.	LD ‡ 14+15	218 Encina
[5]Davis, Herbert Adlington	Burley, Ida.	Law gr.	233 Encina
A. B., Stanford, 1921.			
Davis, Hester Ruth	Mayfield	Bot. gr.	362 Lincoln, M-m
A. B., Stanford, 1921, A. M., 1922.			
Davis, Laura Maud	Santa Ana	Sch. Ed. gr.	Alpha Omicron Pi
A. B., Stanford, 1921.			
[4]Davis, Muriel Risley	Fresno	LD	Roble
[5]Davis, Paul Herbert	Long Beach	E.E. gr.	Theta Xi
A. B., Stanford, 1922.			
Davis, Ruth Temple	Burley, Ida.	Hist. 177+31	206 Roble
A. B., Stanford, 1922.			
[1]Davis, Victor DeWitt	Mayfield	M.E. 10·74+53	216 High-p
Davis, Winthrop Woodworth	Oakland	Pol.S.-Law 32·156+147	408 Encina
A. B., Stanford, 1922.			
[234]Davison, Maynard P.	Honolulu, T. H.	Econ. 118+11	Delta Tau Delta
Dawes, R. Earl	Bozeman, Mont.	Econ. 116·72+18	27 Sequoia
A. B., Stanford, 1922.			
Dawes, R. Truman	Santa Ana	LD 74+1	Theta Delta Chi
Dawson, Clarence H.	Salt Lake City, U.	LD 45·46+13	1242 Cambridge, M
Deach, Ivan J., Jr.	Escondido	Chem. 111+23	60 Sequoia
[5]Dean, Ardys Thelo	Berkeley	Engl. 86+61	554 Encina

Deben, Roy Henry San Francisco Econ. 180+100 509 Encina
A. B., Stanford, 1922.
[12]DeEds, Floyd San Francisco Phar. gr. Medical School, SF-sf
A. B., Western Reserve Univ., 1916, A. M., 1920.
Deffebach, Charles Arthur Los Angeles Pol.S.-Law 78·86+26 KappaSigma
DeGroot, Dudley Sargent Sierra Madre Econ. 100+96 Sigma Nu
Delahoyde, Dorothy E. Los Angeles LD 89+26 Alpha Omicron Pi
Delbon, Montana Turlock Span. 90·47+63 273 Roble
[1]Delkin, James Ladd Seattle, Wn. Hist. 70·34+1 Chinese Club
[124]Dellepiane, Henry Carl San Francisco LD14·47+26 35N'rthw'dDr.,SF-sf
[134]Delpech, Jean Joseph San Francisco Econ. 174+98 Alpha K. Lambda
[4]DeLuca, Eugenio San Jose Fr. gr. 22 Mayellen, SJ-sj
A. M., Stanford, 1922.
Dement, Alice Louisa MyrtlePoint,Ore. Engl. 184+137 100 Roble
A. B., Stanford, 1922.
[12]Demond, Earle Frank Palo Alto Chem. gr. 723 Hamilton-p
A. B., Stanford, 1921, Engineer, 1922.
[4]DeNike, Thomas San Francisco LD sp. 220 Golden Gate, SF-sf
Dennis, Guy Hewitt Los Angeles LD 41+14 Alpha Delta Phi
[1]Dennison, Alice Louise Los Angeles Fr. 54·122+82 201 Roble
A. B., Stanford, 1922.
[4]Denny, Sarah Elizabeth Gilroy LD sp. 300 Roble
[4]Derby, Mariquita San Jose Educ. gr. 459McLaughlin,SJ-sj
A. B., Mills, 1921.
[12]Dethlefsen,EdgarRaymond Watsonville LD 19+1 245 Encina
Detrick, Lawrence Everett Bishop LD 82+24 332 Encina
[4]Deuel, Joseph Cook York. Pa. LD sp. 448 N. 4th, SJ-sj
Deuel, Norman B. Chico LD 89+31 Phi Kappa Sigma
DeVault, Aylett French Boise, Idaho M.E. 40·97+108 424 Encina
[1]Devlin, Arthur Coghlan Sacramento Law gr. Union
A. B., Stanford, 1921.
Devor, George Isadore Los Angeles Law 180+90 564 Encina
A. B., Stanford, 1922.
[5]DeVoss, James Clarence San Jose Educ. gr. 330 S. 9th, SJ
A. B., Colorado, 1911, A. M., 1912.
Devoto, Jerome Loyal San Francisco LD 43+1 628 Gilman-p
[4]DeVries, Martin Tranquillity Pol.S. 67·114–12 328 Lytton-p
[12]Dewing, Charles William Oakland C.E. 23·168+10 433 Encina
A. B., Stanford, 1922.
DeWolfe, Norton Creemer San Mateo LD 93+59 206 Ellsworth,SM-sm
D'Hooghe, Eugene F. Mons, Belgium E.E. gr. 20 Lasuen
E. E., University Liége, 1921; Engineer, Stanford, 1922.
[234]Dickenson,CharlesWm. Madison,Tenn. LD 32+19 11 Sequoia
Dickey, Sanford Marrian, Jr. Isleton Ent. 5·79+7 SigmaAlpha Epsilon

Dickey, William James	Madera	LD 62+26	Zeta Psi
Dickson, Glen Collins	Marshalltown, Ia.	LD ‡ 38–19	900 Waverley-p
[1]Dills, Leslie Harrison	Yakima, Wn.	LD 45+30	Phi Gamma Delta
[1]Dinapoli, Domenick Paul	San Jose	E.E. gr.	317 Encina
A. B., Stanford, 1921, Engineer, 1922.			
[4]Dixon, James LeRoy	Palo Alto	C.Lit.(Lat.)gr.	250 Middlefield-p
A. B., Stanford, 1899.			
[1]Dobbel, Charles Arthur	Palo Alto	Min. gr.	640 Forest-p
A. B., Stanford, 1921.			
[23]Dobbel, Edith Elizabeth	Palo Alto	LD 12·44+13	640 Forest-p
[12]Dobbel, Lillian M.	Palo Alto	Geol. 102+118	640 Forest-p
[4]Dobson,DorothyEleanor	SaltLakeC'y,U.	LD sp.	167 Roble
[12]Dodd, Harold Valby	Los Angeles	Min. gr.	547 Encina
A. B., Stanford, 1920, Engineer, 1922.			
Dodds, Alice	San Jose	LD 59+32	Chi Omega
Dodds, Edward Brandon	Oakland	LD 56–21	5 Sequoia
Dole, Norman Dorset	Riverside	LD 46–11	Beta Theta Pi
Dolfin, Helena May	San Jose	Hist. gr.	Madroño
A. B., College of the Pacific, 1921; A. M., Stanford, 1922.			
Dominguez, Florencio C.	Tampico, Mex.	Chem. 90·90+25	141 Encina
A. B., Stanford, 1922.			
Domoto, Toichi	Oakland	LD 48+42	Japanese Club
[5]Donald, Kathryn	Portland, Ore.	Psych. 172+76	214 Roble
Donaldson, Dorothy Ellen	Palo Alto	Span. gr.	737 Webster-p
A. B., Stanford, 1921.			
[4]Donley, William Guy	Carlsbad, N. M.	Educ. ‡	324 Emerson-p
Donoho, Truman Lawrence	Fowler	Span. 181+150	303 Union
A. B., Stanford, 1922.			
[124]Donohoe, Thomas M.	Cordova, Alaska	Pol.S.-Law 126+84	Chi Psi
[12]Donohugh, William N.	Los Angeles	LD 17–13	235 Encina
[4]Donovan, Hugh Henry	San Francisco	Law gr.	1160 Bryant-p
A. B., California, 1921.			
Doran, John Joseph	Menlo Park	Greek gr.	St.Patr'k'sSem:,MP-mp
A. M., St. Mary's University, 1901.			
[1]Dorland, Willet	San Diego	Law 107+31	Chi Psi
[23]Dougall,AlexanderH.,Jr.	SanFrancisco	LD 17–14	Grant Rooms
Dougan, Stanley	Palo Alto	Med. gr.	2273 California, SF-sf
B. S., Ohio, 1914.			
[12]Doughty. Raeburn	Austin, Tex.	Geol.39·59+17	SigmaAlphaEpsil'n
Douglas, Chesley McKinley	San Jose	Econ. 107+72	1101 S. 1st, SJ-sj
[5]Douglas, Herbert Victor	Newton, Miss.	Econ. sp. 75–9	Union
[13]Douglass, Earl S.	Menlo Park	LD ‡ 14–16	Box 233, MP-mp
[12]Douglass, Joe Garner	Blythe	Econ. 48–36	Sigma Nu
Douglass, Wilson Fisk	Council Bluffs,Ia.	LD 91+74	247 Encina

Downs, Josephine Lorene A. B., Stanford, 1922.	Los Angeles	Span. 103·85+32	253 Roble
Dows, Samuel Randall	Palo Alto	M.E. 79·75–9	Hotel Palo Alto
[2]Doyle, James Patrick	Redwood City	LD sp.	713 Walnut, RC-rc
[5]Doyle, John Joseph L. A. B., Stanford, 1919.	San Francisco	Med. gr.	2719 Bush, SF-sf
[4]Dozier, Doris A. B., Mills, 1920.	Modesto	Hist. gr.	224 Roble
Drabkin, Charles A. B., Stanford, 1922.	Los Angeles	Chem. gr.	301 Union
Drachman, Rosemary A. B., Stanford, 1922.	Tucson, Ariz.	Engl. 124·74+107	266 Roble
[1]Drake, George Francis, Jr.	Los Angeles	M.E. 35·87–28	217 Encina
Draper, Charles Stark A. B., Stanford, 1922.	Palo Alto	Psych.94·119+117	SigmaAlphaEp.
Draper, Fred Douglas	Palo Alto	LD 46+17	328 Churchill-p
[23]Draper, Guy A. B., Stanford, 1922.	Arroyo Grande	Geol. 55·136+44	13 Encina
Draper, Jerome C.	Birmingham, Mich.	LD ‡ 30+11	Phi Kappa Psi
Drew, Harvey Linford	Pasadena	LD 47+1	Theta Xi
[2]Drew, Marguerite P. A. B., Swarthmore, 1920.	Gainesville, Tex.	Pol.S. gr.	Madroño
[2]Drew, Reginald Eastman	Palo Alto	Bot. 55·92+30	1321 Waverley-p
Dreyfuss, Milton	Buffalo, N. Y.	LD 7·92+151	525 Encina
[24]Driscoll, Edwin Francis	San Francisco	LD ‡ 13–12	Mayfield-m
Driscoll, John Austin	San Jose	LD 60+37	Phi Delta Theta
[1]Driver, Earl Paxton	Sacramento	LD 44–34	Theta Delta Chi
Driver, Herschel Livingston A. B., Stanford, 1919, Engineer, 1921.	Palo Alto	Geol. gr.	515 Waverley-p
[1]Drugg, Walter C.	Webb City, Mo.	Econ. sp. ‡ 24+6	25 Sequoia
Dryden, Horace Walter	Corvallis, Ore.	LD ‡ 50–2	Sigma Chi
[5]Drysdale, George Sidney	Palo Alto	LD 10·92+52	227 Encina
DuBois,LloydKriesel,Jr.	Vancouver,Wn.	LD 44+14	328 Lytton-p
[4]Dudley, Rees Thompson A. B., California, 1920.	San Francisco	Law gr.	1160 Bryant
[4]Duer, Carrie Myrtle	Zenith, Kans.	Educ.	259 Roble
Duff, Margaret Helen	San Mateo	Bot. 154+123	Gamma Phi Beta
[1]Dunbar, Wm. Henry Kruger	Alameda	LD 37–3	Chi Psi
Duncan, Carl Dudley	Fresno	Ent. 37·97+156	Lobata Lodge,MP
[5]Duncan, Donald Theodore	Los Angeles	Phil. 9·142+114	307 Union
[5]Duncan,RobertFyfeMein	San Francisco	Geol. 13·117+11	Phi Delta Theta
Duncan, William Bryan	Fresno	M.E. 107+109	Lobata Lodge, MP
[3]Dunker, Chrysella A. B., Stanford, 1921.	Palo Alto	Ed.G.A. gr.	755 University-p

Dunker, Janice Annette A. B., Stanford, 1922.	Palo Alto	Ed.G.A. 181+154	755 University-p
Dunlavy, Dorothy Cornelia	Trinidad, Colo.	LD 48+28	367 Roble
[4]Dunlop, Rachel Thayer	Hartford, Conn.	LD	Roble
[4]Dunne, Arthur Bergin A. B., California, 1920.	San Francisco	Law gr.	23 Alvarado
[4]Durbrow, Elise May	San Francisco	LD	210 Roble
Durston, Wayne Alvin	Lodi	LD 107+60	Convalescent Home
[1]Duryea, Philip Taylor A. B., Stanford, 1922.	Palo Alto	Geol. 24·148+16	318 Lincoln-p
Duryee, Lawrence M.	New York, N. Y.	M.E. 102+18	Phi Kappa Sigma
[23]Duveneck, Frank B. MM. E., Harvard, 1910.	Palo Alto	E.E. gr.	Hamilton-p
Dwight, Herbert McGilvray	Fresno	LD 98+116	Sigma Nu
Dwight, Marion Lorna A. B., Stanford, 1922.	Stanford Univ.	Math. 186+222	Reservoir Drive
Dye, Alfred Thomas	Logan, Kans.	LD 41·51+21	945 Webster-p
[14]Dykes, Harlan Hebe A. B., Stanford, 1922.	San Francisco	Ed.P.E. gr.	Kingscote
[14]Dykes, Laura Getz A. B., Stanford, 1921.	San Francisco	Ed.P.E. gr.	Kingscote
Eagleson, Harvey Alexander A. B., Reed, 1920; A. M., Stanford, 1922.	Boise, Ida.	Engl. gr.	317 Union
Eardley, Wendell Arthur	Bakersfield	LD 30–6	436 Encina
[5]Earl, Glenn M.	Venice	Geol. 80·75+29	25 University-p
[4]Earle, Margaret Mae	Palo Alto	LD	619 Webster-p
[5]Easly, James Joseph	Stanford Univ.	LD 93+53	345 Encina
[1]Eaton, Frances B. S., Oregon Agricultural College, 1919.	Hollywood	Engl. gr.	Madroño
Eberhard, Clara A. B., Stanford, 1897.	Santa Clara	Ger. gr.	575 Grant, SC-sc
Ebisuya, Kazuo	Iwakuni, Japan	M.E. 144+100	19 Cabrillo
Echols, Marion Norwood A. B., Stanford, 1922.	Hartford, Conn.	Hist.-Jn. 181+201	526 University-p
Eckern, Romona Kathleen B. A., Reed, 1918; A. M., Stanford, 1922.	Portland, Ore.	Sch. Ed. gr.	Madroño
[5]Eddelman, William Smiley, Jr.	Martinez	Geol. 3·170+31	500 Encina
Edmonds, Raoul Leland	Los Angeles	M.E. 57·136+38	Theta Chi
[4]Edwards, B. Shirley	Marshfield, Ore.	Econ.	Alpha Tau Omega
Edwards, Gerald Jesse	Cloverdale, Ore.	Econ. 141+86	327 Encina
Edwards, Harry Jack	San Diego	Econ. 114+37	Phi Delta Theta
Edwards, Muriel Emma A. B., Stanford, 1921.	Wallace, Ida.	Pre-Med. gr.	284 Roble
§Edwards, Orvil Dare	Broadus, Mont.	M.E. 106–14	450 Melville-p

§ Deceased July 2, 1922.

Edwards, Robert Horatio Los Angeles Econ. 42·91+43 AlphaTauOmega
[12]Edwards, Roy Pierce Wallace, Ida. Engl. 41·36+22 34 Lasuen
[4]Edwardson, Leora Lida Palo Alto Educ. gr. Box 241, Palo Alto-p
A. B., University of Wyoming, 1914.
Eggleston, Thomas Hubert Emmett, Ida. M.E. 122+40 303 Encina
Ehrhorn, Dorothy MountainView LD 96+85 Box 56, MV-mv
Ehrhorn,JackMacfarlane MountainView LD 97+70 Mountain View-mv
Eichelberger, Charles E. Boise, Ida. Educ. gr. 223 Cowper-p
B. S., Idaho, 1907, A. M., Stanford, 1922.
[4]Eiskamp, Marguerite Palo Alto Chem. gr. 447 Forest-p
A. B., Stanford, 1920, A. M., 1921.
Eldredge, Lois San Francisco Econ. 117·122+45 279 Roble
A. B., Stanford, 1922.
[3]Elfving, Isabel Dorothy San Mateo Fr. 33·153+258 Pi Beta Phi
A. B., Stanford, 1922.
[2]Elgin,RobertAnderson Madisonville,Ky. LD 10·51+35 Theta Xi
[3]*Ellenwood. Frank Ithaca, N. Y. C.E. gr. Ithaca, N. Y.
A. B., Stanford, 1904, Engineer, 1922.
Elliott, Daniel Walter Palo Alto Geol. 46·119–13 433 Kipling-p
[12]Elliott, Edward Loomis Pittsburgh, Pa. Min. gr. 508 Encina
A. B., Stanford, 1921.
[13]Elliott, Elmer Ellsworth Compton Econ. 93–10 Phi Gamma Delta
[4]Elliott, Louis Dunshee San Pedro Chem. gr. Los Altos-la
A. B., Stanford, 1911.
Ellis, Charles Alden San Francisco M.E. 182+73 Delta Tau Delta
A. B., Stanford, 1922.
Ellis, Charles Edward Berkeley LD 79–7 249 Encina
Ellis, William Unger Eureka Chem. 10·125+167 207 Encina
[23]Ells, Harry Arthur Bellingham, Wn. Geol. 180+14 Alpha Tau Omega
A. B., Stanford, 1922.
[4]Elmer, Walter Edgar Chinook, Mont. Educ. gr. 37 E.San Antonio,SJ-sj
B. L., Wisconsin, 1900.
Elmore, Garrett Henry Palo Alto Law 22·111+194 1134 Emerson-p
Elms, Myron Kenneth San Francisco LD 45+18 915 Waverley-p
[24]Elvey, Donald Mitchell Cupertino Engl. 70+3 230 S. 22d, SJ-sj
Ely, Northcutt Phoenix, Ariz. LD 84+28 Sigma Nu
[12]Emahiser,RobertMerritt LaGrande,Ore. LD 46–16 538 Cowper-p
English, Harlow DeWolf, Jr. Lindsay LD 91+41 247 Encina
Enos, Lawrence Marcel Santa Maria LD 22·77+48 63 Sequoia
[23]Enright, Austin Kellogg Santa Clara C.E. 18–13 Phi Kappa Sigma
Enright, James Robert Santa Cruz Zool. 4·131+162 501 Encina
[1]Enright, Margaret Mary Santa Clara Hist. 40·140+0 Santa Clara-sc
A. B., Stanford, 1922.
[12]Ensz, John Harold Mayfield Educ. gr. 970 Main, M-m
A. B., Bethel College, 1914.

[34]Entenza, John D.	San Francisco	LD 10–11	737 Bryant
Erbaugh,Charles Oscar,Jr.	Denver,Colo.	Law ‡ 0–13	475 Forest-p
[1]Erich, Reuben Robert	San Jose	M.E. 63+11	546 N. 4th, SJ-sj
Erickson, Vance Bryant	Kalispell, Mont.	LD 90+39	120 Encina
Eshleman, Wallace C.	Charles City, Ia.	LD 36+12	431 Channing-p
Eskew, Clarence Eugene	Benton, Ill.	Econ. 84·41+10	Union
[4]Estabrook, Winifred F.	Los Gatos	Educ.90·22+18	Bx.114,Rt.1,LG-lg
[5]Estcourt,VivianFitzGeorge	PacificGrove	M.E. 115·75+12	535 Encina
Estus, Mildred Margaret A. B., Stanford, 1922.	Palo Alto	Lat. 184+292	920 Scott-p
Eubanks, Eva Rea	Alameda	LD 43–18	371 Roble
[12]Eva, James Meredith	Redwood City	LD 33–10	Redwood City-rc
[4]Evans, Charles Orrick	Riverside	LD	64 Sequoia
[5]Evans, Daniel Webster LL. B., Stanford, 1922.	San Bernardino	Law 49·173+41	Union
Evans, Fred Shirey	Manteca	LD 77+13	527 Hamilton
Evans, Kathleen	Riverside	LD 21·73+73	Pi Beta Phi
Evans, Mark Howard	Minto Bridge,Y.T.	Geol. sp. 211+34	425 Encina
Evans, Wardwell Devore	SanBernardino	Econ.-Law 138+63	217 Encina
Evans, William Cary A. B., Stanford, 1922.	Riverside	Econ.-Law 35·147+93	213 Union
Evenson, Clarence Roy A. B., Stanford, 1922.	Clatskanie, Ore.	Pol.S. 181+63	543 Encina
[5]Everett,EarlAlexander A. M., Nebraska, 1919.	WallaWalla,Wn.	Law gr.	25 Salvatierra
[2]Everett, Ellen D. A. B., Smith, 1921.	Columbia, Tenn.	Engl. gr.	
[12]Evers, Wendell Henry George	Biggs	LD 32+1	26 Sequoia
[4]Everton, Ethel Esther	Redlands	LD sp.	262 Roble
Ewell, Catharine D.	Cañon City, Colo.	LD 7·92+149	181 Roble
[12]Ewert, William Van Velsor	Long Beach	LD 17+8	140 Encina
[5]Ewing, Sydney Clement	Bedford, Eng.	Geol. 127+125	32 Sequoia
[5]Eyre, Mary Brooks	Denver, Colo.	Psych. 90·69+105	252 Kingsley
[12]Fablinger, James Brown A. B., Stanford, 1922.	Campbell	Econ. 5·178+114	328 Encina
[4]Fairall, Martha	Palo Alto	LD	410 Churchill-p
[5]Fairchild, Nellie Irene	Kearney, Neb.	Fr. 131+76	102 Roble
[23]Fairclough, Gordon F.	St. Paul, Minn.	LD sp. 15–12	Phi Gamma Delta
[4]Fairclough, Katrine R. A. B., Stanford, 1914.	Stanford Univ.	Sch. Ed. gr.	6 Cabrillo
Falk, Curtis Lane	Eureka	Phyl. 139+66	Delta Upsilon
[5]Fall, John Gilbert	Los Angeles	Econ. 51·120+20	AlphaTauOmega
Falnes, Oscar Julius A. B., St. Olaf, 1921; A. M., Stanford, 1922.	Woodburn, Ore.	Hist. gr.	947 Waverley-p

Farish, Edward Tilghman	Denver, Colo.	Geol. 103+29	33 Sequoia
Farish, Linn Markeley	Woodland	Geol. 99+27	Kappa Sigma
Farley, Fred Long	San Jose	Greek gr.	65 Singletary, SJ-sj
A. B., Albion, 1907, A. M., 1911.			
Farley, Raymond Mervy	San Francisco	LD 78+22	323 Encina
Farmer, Edward McNeil	Alhambra	Ed. G.A. 135+182	556 Encina
Faucette, Thomas F.	Rexburg, Ida.	Engl.-Jn. 97·52+42	Chinese Club
[1]Faulds, John	Sunnyvale	Educ. gr.	Sunnyvale-s
A. B., Stanford, 1921.			
[12]Faulkner, Robert N., Jr.	San Mateo	LD 43+6	425 Griffith, SM-sm
Faus, Ione Beryl	Lindsay	LD 93+143	164 Roble
[5]Faustino, Leopoldo Alcaraz	Manila, P.I.	Geol. gr.	543 Byron
B. E., Ohio State University, 1917; A. M., Stanford, 1922.			
Faville, David Ernest	Portland, Ore.	Econ. gr.	306 Encina
A. B., Stanford, 1922.			
Faville, Richard Wm.	Portland, Ore.	M.E. 138+16	Beta Theta Pi
[5]Fawcett, Will Mahlon	Whittier	Econ. 78·95+101	115 Everett-p
[4]Fearing, Flora May	Palo Alto	Pol.S. gr.	147 Emerson-p
A. B., Stanford, 1917, A. M., 1918.			
[34]Fearing, Franklin Smith	Palo Alto	Psych. 42·91+49	147 Emerson
Fehren, Frederick Gerichs	San Jose	Econ. 61·134+57	119 Encina
A. B., Stanford, 1922.			
[124]Fendler, Harold Altman	Los Angeles	Law 183+12	230 Encina
A. B., Stanford, 1922.			
Fenimore, William E.	Carthage, Mo.	Engl. 90·89+78	734 Waverley-p
A. B., Stanford, 1922.			
[12]Fennemore, Richard M.	Phoenix, Ariz.	LD 34–1	444 Encina
[5]Fenner, Beatrice Alethea	Palo Alto	Math. 67·97+129	270 Kellogg-p
Fenton, Frank L.	Santa Rosa	Engl. 84·66+57	210 Encina
[34]Fenton, Norman	Menlo Park	Educ. gr.	Box 693, MP-mp
A. M., Harvard, 1918.			
[12]Ferguson, Donald Kelly	San Diego	Law 122·59+3	Phi Delta Theta
A. B., Stanford, 1922.			
Ferguson, Kenneth Loveland	Palo Alto	LD 46+1	Alpha Sigma Phi
Fernish, Charles A.	Santa Clara	Med. gr.	945 Madison, SC-sc
A. B., Stanford, 1921.			
[2]Ferris, Paul Whyte	Oak Park, Ill.	LD 17+0	667 Channing-p
Ferry, Mabel Farwell	San Diego	Engl. 110·30+34	179 Roble
[2]Fewel, Alan James	Fresno	Econ. 13–10	
Field, John, 2d.	Philadelphia, Pa.	Chem. 141+165	1636 Emerson-p
[1]Filley, Edward Prior	Pasadena	Geol. 5·184+1	Zeta Psi
A. B., Stanford, 1922.			
[1]Findley, Frank Miller	Palo Alto	LD 34–23	Zeta Psi
[12]Finley, Mildred Dinsmore	Los Angeles	Econ. 92·76+108	KappaKappaGam.

Fish, Frances Cecilia	Palo Alto	Fr. 119+30	308 Lincoln-p
Fish, George Calder	Millsboro, Pa.	Pol.S. gr.	Phi Kappa Psi
A. B., Washington and Jefferson, 1920.			
Fishburn, John Eugene, Jr.	Los Angeles	LD 89+82	Delta Kappa Epsilon
[5]Fisher, Frederic Russell	Manila, P. I.	LD 4·95+102	Delta Upsilon
[4]Fisher, Rosalind	Manila, P. I.	LD	329 Roble
Fisher, Ross Clark	Spokane, Wn.	Econ.-Law 4·195+200	AlphaD.Phi
A. B., Stanford, 1922.			
[1]Fisher, William Dudley	Napa	LD 8–15	Chinese Club
Fisher, William Lyle	Coalinga	Econ. 45·95+92	56 Sequoia
[13]Fitch, Frank Brewer	Mayfield	Chem. gr.	141 Amherst, M
A. B., University of Southern California, 1909.			
[23]Fitzhugh, Anna Thornton	Los Angeles	LD 23–8	309 Roble
[4]Fitzhugh, Wm. McPherson	SanFrancisco	LD sp.	Sequoia
[4]Fitzmorris, Arthur E.	La Mesa	Sch. Ed. ‡	407 Stanford, M
[4]Fitzmorris, Cecile E.	La Mesa	Educ. ‡	407 Stanford, M
Fitzpatrick, Frank Charles	San Jose	LD 135·41+31	474 S. 7th, SJ-sj
Flanagan, James Alelefeld	Kenton, O.	Law gr.	Kingscote
A. B., Miami University, 1921.			
Fleischman, Charles C.	San Francisco	LD 97+42	305 Encina
[4]Fleming, Alice L.	Marengo, Ill.	LD	Roble
Fleming, Robert Carlile	Lincoln	Hist.-Law 109–5	Theta Chi
[3]Flesher, Beatrice Elise	Denver, Colo.	LD 14–4	305 Roble
Fletcher, Charles Gross	San Diego	LD 83+16	Phi Delta Theta
[4]Fletcher, Hugh Mackay	Toronto, Can.	Econ. gr.	650 Waverley-p
A. B., University of British Columbia, 1919; A. M., Stanford, 1920.			
Flint, Marjorie Chapman	Hollister	Sch. Ed. gr.	675 Channing-p
A. B., Mills College, 1920.			
Flood, Raymond Oliver	San Francisco	LD 93+34	Phi Delta Theta
[5]Florcken, Herbert G.	Los Angeles	LD 97+134	630 Bryant-p
[1]Flowers, Esther May	Pasadena	Ed. G.A. 97+24	Kappa A. Theta
[4]Flowers, Evelyn Grace	Pasadena	Educ. gr.	Kappa Alpha Theta
A. B., Stanford, 1920.			
[4]Flynn, Ellen Theresa	San Jose	LD sp.	553 S. 5th, SJ-sj
Fogg, Philip Shearer	Palo Alto	LD 46+64	1404 Bryant-p
Follansbee, George Sherman, Jr.	Taft	LD 47+34	Theta Xi
Follis, Donald Charles	Stanford Univ.	M.E. sp. 4·126+54	438 Encina
[1]Ford, James M.	Kalispell, Mont.	LD 33–10	216 High-p
[5]Forster, Albert	Stanford Univ.	Geol. 143+107	Theta Xi
[124]Forster, Donald Francis	Watsonville	LD 37–5	41 Encina
Forsyth, George T., Jr.	Portland, Ore.	LD 39+5	947 Waverley-p
[23]Fort, Lois	Eagle Rock City	LD 44+33	359 Roble
[2]Fortier, John Joseph	Berkeley	LD 7–11	13 Salvatierra

Fortson, Gordon Russell Homer, La. Med. gr. 2325 Sacramento, SF-sf
A. B., Washington and Lee, 1910.
Foster, Frances Stanford Univ. LD 35-50+26 22 Lasuen
[23]Foster, Frances Belden Hollywood LD 22–13 307 Roble
Foster, Walter Blair San Francisco LD 75+4 Zeta Psi
[1]Fourt, Walter Junius Fairfield, Iowa Pol.S. 100-15+6 Alvarado Hall
Fowle, Lee Charles Dowagiac, Mich. LD 33–10 Sigma Alpha Epsilon
Fox, Leo Sanor Los Angeles Geol. 24-99–21 Sigma Chi
[1]Foy, Jack Ng Calgary, Can. LD Chinese Club
Foye, Charles Edward San Francisco LD 45+51 Sigma Nu
[4]Foye, Evangeline H. Charlestown, Mass. LD sp. 337 Roble
Frame, Paul Warren Bellingham, Wn. Med. gr. San Fran. Hosp.,SF-sf
B. S., Washington, 1916.
[12]Frankenheimer, Bernard J. Stockton Econ. 180+104 121 Encina
A. B., Stanford, 1922.
Franklin,Anna Comstock Stanford Univ. Med. gr. 1134 Jackson, SF-sf
A. B., Stanford, 1920.
Franklin, Charles Scott Stanford Univ. Geol. 109+0 San Juan Hill
[124]Franklin, Geraldine Carpinteria LD 73+7 Delta Gamma
[124]Franklin, Josephine Carpinteria LD 73+12 Delta Gamma
[1]Franklin, Lloyd Jackson San Bernardino M.E. 140+5 Theta Chi
Franklin, Walter King San Bernardino M.E. 190+41 Theta Chi
A. B., Stanford, 1922.
Fraser, Donald McCoy Bayles LD 46+12 Theta Xi
[3]Frazier, Mildred Lucile Los Angeles Phys. gr. 353 Addison-p
A. M., Wisconsin, 1921.
[1]Fredericks, Charles Edwin Los Angeles LD 20–11 Beta Theta Pi
[4]Fredericks, John D. Los Angeles Law 3-67+20 Alpha Delta Phi
[12]Frederickson, Frederick R. Los Gatos Econ. 127+82 Alpha Sigma Phi
Freeman,FlemingF.,III. Okla.City,Okla. LD 23–27 Alpha Sigma Phi
[12]Freeman,MarionRussell SanFrancisco LD sp. 8+9 726 S. 6th, SJ-sj
Freer, George Gaylord Ashland, Ohio Econ. 108-40+17 AlphaTauOmega
French, Florence E. Los Angeles LD 47+72 342 Roble
[23]French, Harry Zeba Fair Oaks LD sp. 9–7 205 Union
French, Samuel W. Ashtabula, Ohio M.E. 142+101 42 Encina
[5]French, William Oscar, Jr. Oakland Med. gr. 320 Union
A. B., California, 1920.
[23]Friebel, Helen Mae Whittier LD 24–18 215 Roble
Frink, Frederick William Palo Alto LD 49+52 943 Bryant-p
Fritschen, William SanFrancisco Med. gr. 3544 Mission, SF-sf
A. B., Stanford, 1921.
[124]Fueller, Charles McElroy Los Angeles LD 32+15 404 Encina
Fujinaga, Ernest S. Hakalau, Hawaii LD 39+56 1400 Waverley-p

[12]Fuller, Dana Lloyd	San Francisco	LD 23+20	Delta Kappa Epsilon
[12]Fuller, Frank Wastie, Jr.	San Francisco	LD 69+33	Delta Kappa Epsilon
Fullerton, Dick Phelps, Jr.	San Francisco	LD 93+50	Beta Theta Pi
[12]Fullerton, Hugh Thompson	San Francisco	Law 191+23	Beta Theta Pi
A. B., Stanford, 1922.			
[12]Furui, Shungo	Japan	E.E. gr.	Japanese Club
A. B., Stanford, 1921, Engineer, 1922.			
[4]Fye, Florence	Los Angeles	Ed. P.E. ‡	305 Roble
[5]Gage, Daniel Dudley, Jr.	Los Angeles	LD 93+87	122 Encina
[5]Gage, William Richard	Los Angeles	LD 87+0	122 Encina
[5]Gagos, Kenneth A.	San Francisco	Chem. 5·156+104	1001 Cowper
Gagossian, Henry T.	Fresno	LD 45+20	1a Alvarado
[4]Gallagher, Edward Detlar	Kelseyville	Educ. gr.	847 Bryant-p
A. B., Valparaiso University, 1912.			
Gallagher, Thomas A.	Stanford Univ.	Law gr.	Sigma Alpha Epsilon
A. B., Stanford, 1922.			
[5]Gallegos, Percy Beales	San Francisco	Med. gr.	2127 Washington, SF-sf
A. B., Stanford, 1921.			
Gammon, Cyril T.	Hood	LD 44+0	Sigma Alpha Epsilon
[12]Gardner, Dorothy	Stanford Univ.	Fr. 55–21	1a Alvarado
[1]Gardner, James Blaine	San Francisco	Econ. sp. 77+24	Alvarado Hall
Gardner, Kenneth Drake	Oakland	Pre-Med. 136+129	324 Encina
[5]Garland, Ruth	Santa Barbara	Med. gr.	1134 Jackson, SF-sf
A. B., Stanford, 1920.			
[12]Garrigan, Lloyd William	Coalinga	LD 23–20	636 Gilman-p
Garten, Ruth Muriel	Long Beach	Pre-Med. 98·42+51	167 Roble
[234]Garth, James Wm.	Beaumont, Tex.	Econ. 130·25+3	831 Bryant-p
Garth, William LeRoy	Palo Alto	Med. gr.	Y.M.C.A., SF-p
A. B., Stanford, 1922.			
Garvin, Priscilla Ash	Billings, Mont.	Econ. 188+109	Kingscote
A. B., Stanford, 1922.			
[5]Gates, Harry Phelps	Los Angeles	Engl.-Jn. 101·65+65	Sequoia
Genereaux, Raymond Paul	San Francisco	LD 77+20	Phi Kappa Psi
Gentry, Harold Goodman	Redlands	Phyl.-Med. 47·147+99	20 Sequoia
[1]Gerken, Elon Edward	Canutillo, Tex.	Econ. 34·156+19	359 Emerson-p
A. B., Stanford, 1922.			
Gerry, Martin H., Jr.	Minneapolis, Minn.	LD 40+14	Sigma Chi
Gerson, Lowell Woodruff	Los Angeles	Econ. 187+144	Alpha Delta Phi
A. B., Stanford, 1922.			
[3]Gertmenian, Harold A.	Pasadena	LD ‡ 16+20	14 Sequoia
[12]Geyer, Harold Clinton	Burley, Idaho	Econ. 52·42+19	348 Encina
Geyer, Henry Elmer	Burley, Idaho	M.E. 183+259	348 Encina
A. B., Stanford, 1922.			

Ghrist, David Garrison A. B., Stanford, 1921.	Ames, Iowa	Med. gr.	231 Union
Gibbon, Thomas Edward, Jr. A. B., Stanford, 1922.	Los Angeles	Phil. 9-171+134	Chi Psi
[13]Gibbons, Margaret V.	San Francisco	Engl.-Jn. 89-33+35	357 Roble
[5]Gibbons, Morton R., Jr.	San Francisco	LD 58+4	Sigma Alpha Epsilon
Gibbs, Chester William A. B., Stanford, 1920.	Orcutt	Min. gr.	500 Encina
Gibbs, Marion Wallace	Pasadena	Span. 138+25	Kappa Kappa Gam.
Gibson, Florian Greenleaf	Palo Alto	Geol. 54-122+15	1831 Waverley-p
[1]Gibson, Wm. Earl	Palo Alto	Geol. 63–21	1831 Waverley-p
[5]Gidal, Harry Bernard	San Francisco	Chem. 109-58+14	427 Homer-p
[5]Gifford, Charles D.	Tucson, Ariz.	Geol. 83-40+6	Sig.Alpha Epsilon
[4]Gilbert, Etta King	Austin, Tex.	Engl. ‡	301 Roble
Gilchriste, Frank Cooper	San Mateo	Econ. 80+2	105 Tilton, SM-sm
[1]Gilchriste, Gladys	San Mateo	Hist. 24-68–7	Kappa Alpha Theta
[1]Gilger, Harry Ralph	Taft	LD 16–23	308 Encina
[124]Gilkey, Wallace Alfred A. B., Stanford, 1922.	Stanford Univ.	Chem. 5-185+69	College Terrace
Gill, Burgo Doyle B. S., Florida, 1921.	Jacksonville, Fla.	Min.gr.	Wm.War.Sch., Bx606-p
Gill, Lake S.	Palo Alto	Bot. 54-109+87	307 Encina-p
Gill, Roland Jerome	Spokane, Wn.	Econ. sp. 85+6	Alpha Delta Phi
[1]Gilleland,CharlesHazleton	Phoenix,Ariz.	LD 10–10	111 Encina
Gillen, James Simon	Sheboygan, Wis.	Econ. 50-77–2	418 Encina
Gillette, Landa Van A.	Grants Pass, Ore.	LD 35–13	30 Encina
[1]Gilliland, Edwin Gaylord	Santa Cruz	Econ. 52–19	Kappa Alpha
[1]Gillis, Lindsay	Los Angeles	Pol.S. 45-103–10	DeltaK.Epsilon
[12]Gilroy, Urban Burns A. B., Stanford, 1922.	Marysville	C.E. 13-172+109	563 Encina
Givan, Charles Vernon	Sacramento	LD 7-48+73	30 Encina
[3]Gladding, Helen Adeline	Lincoln	LD 14+0	154 Roble
[34]Gladrow, Herbert Chas.	Oak Park	LD sp. 5–8	635 Bryant-p
[5]Gladstone, Jacob Bernard	Harbin, China	LD sp. 30–3	713 Emerson-p
[13]Glann, Blanche Estella	Mountain View	LD 43+57	Mountain View-mv
[34]Glauber, Earl Isaac	Los Angeles	LD 18+9	245 Encina
[13]Glenn, Charlotte Marian A. B., Stanford, 1922.	Los Angeles	Fr. 73-107+195	103 Roble
[17]*Glenn, Henry L.	New York, N.Y.	Econ.96-86+81	Antwerp,Belgium
Glenn, P. Eugene	Bakersfield	Law ‡ 46+10	430 Encina
[3]Gobey, Arthur Jesse	San Francisco	LD	244 Encina
[5]Gobar, Franklin Harold A. B., Stanford, 1921.	Fullerton	Med.gr.	224TwinPks.Blvd.,SF-sf

[5]Goddard, Glenn William	Carbondale, Ill.	Geol. 67·63+7	325 Union
[4]Goggin, William Alfred Ph. B., Brown, 1919.	Paso Robles	Educ. gr.	135 Churchill-p
Goldberg, Hazel Dene A. B., Stanford, 1922.	Long Beach	Span. 108·75+20	247 Roble
[23]Goldberg, William Bernard	Palo Alto	LD 15+0	107 Encina
[12]Goldie, Pirie Richard	Pomona	LD 44–25	31 Sequoia
[5]Goldman, Robert Louis	San Francisco	LD 76+57	200 Encina
[1]Goldstein, Joseph A. B., Stanford, 1919.	San Francisco	Med. gr.	2202 California, SF-sf
Goldstone, Abram Hirsch A. B., Stanford, 1922.	Lewiston, Ida.	Econ. 187+139	16 Encina
[12]Goldsworthy, Geo. Wilson	Phoenix, Ariz.	LD 36–23	444 Encina
[1]Goldwater, Jerrold L.	Los Angeles	LD 52–25	119 Encina
Gomes, Joseph Vincent A. B., Stanford, 1922.	Campbell	Law 189+78	216 Encina
Gonzales, Francisco Leopoldo A. B., Stanford, 1922.	Palo Alto	Bact. 72·107+30	455 Forest-p
Goodman, Daniel Louis A. B., Stanford, 1922.	Yakima, Wn.	Law 185+314	537 Encina
[4]Goodrich, Lewis Joseph	Santa Barbara	LD	324 Union
[5]Goold, John Vernon A. B., Stanford, 1920.	Morgan Hill	Sch. Ed. gr.	555 Encina
[4]Gordon, George Louis	Boulder Creek	Educ. ‡	336 S. 5th, SJ-sj
[1]Gordon, Max Sanford	Portland, Ore.	Pol.S. ‡	
Gorman, William Harrington A. B., Stanford, 1922.	Raymond	M.E. 184+125	Delta Chi
Gormley, Harriet A. B., Stanford, 1922.	Atlantic City, N. J.	Engl. 182+160	Delta Gamma
Gorrell, Leslie Ewing, Jr.	Palo Alto	LD 91+44	Sigma Alpha Epsilon
[4]Gould, Leona L.	Eureka	LD	223 Roble
[5]Goux, Estelle Katherine	Santa Barbara	Hist. 12·120+94	Chi Omega
[5]Goux, Julien Francis	Santa Barbara	Law 163+261	44 Encina
[1]Gover, William Charles	Anderson	LD 39–7	Phi Gamma Delta
Gower, Marian Ruth	Santa Barbara	LD 45·46+70	170 Roble
[5]Grable, Goss Silas A. B., Stanford, 1922.	San Jose	Hist. gr.	344 Hull, SJ-sj
[23]Grace, Thelma	San Francisco	Hist. 105·31+6	362 Roble
Grace, Thomas Joseph	Santa Rosa	LD 44+15	Phi Gamma Delta
Graham, Donald Wilkinson	Pasadena	LD 51+32	Phi Kappa Sigma
[1]Graham, Frank Fremont	Palo Alto	LD 41·32–11	327 Cowper-p
[12]Graham, Grayson Bard	Los Angeles	LD 34+17	Alpha Sigma Phi
Granger, Neil P.	Orange	LD 93+53	Beta Theta Pi

Grannis, Virginia Rey A. B., Stanford, 1922.	Los Angeles	Fr. 132·48+20	Pi Beta Phi
Grant, Dorothy Margaret	Palo Alto	LD 50+40	504 Hamilton
[4]Grant, George F.	Salinas	Educ.	675 Channing-p
Grant, Marjorie E. M. A. B., Stanford, 1922.	Palo Alto	Econ. 188+61	315 Melville-p
Grassell, Warner Hughes	Los Angeles	Econ. 39·41–19	227 Union
Graves, Dick Wedgwood	Ogden, Utah	Phil. 96+90	Phi Kappa Psi
Graves, John Dunbar	Hollywood	LD 71+31	Alpha Tau Omega
Gravestock, Warren E.	Palo Alto	Econ. 137+90	R.F.D.1, Box 19-p
[1]Gray, Charles L.	Paducah, Ky.	LD sp. 12+5	Alvarado Hall
[12]Gray, Charles Sanford	Phoenix, Ariz.	LD 0–28	Delta Chi
[23]Gray, Clarence Rolland A. B., Stanford, 1922.	Pomona	Econ. 129·58+15	327 Union
[23]Gray, Earl Haskins	Petaluma	LD 35–15	351 Encina
[12]Gray, Leslie George	Palo Alto	LD 67+38	643 High-p
[4]Gray, Marion Grace	Vallejo	LD sp.	218 Roble
Green, Copeland	Long Beach	M.E. 42·88+74	117 Encina
Green, Frances Myers	Glendale	Fr. 135+209	363 Roble
[23]Green, George Robert	San Francisco	Econ. 10·83–14	Delta Kappa Ep.
[234]Green, Thomas Edwards	Stanford Univ.	Econ. 106+23	13 Salvatierra
Greene, Harry Ashland, Jr.	Monterey	M.E. 106+117	46 Sequoia
Greene, Helen Hartley	Columbia, Mo.	Zool. 90·57+64	315 Roble
Greene, Thomas G., Jr.	Portland, Ore.	Law 129+103	357 Encina
[4]Greenly, Maurice G. B. S., South Dakota State College of Agriculture, 1913.	Hot Springs, S. D.	Educ. gr.	421 Oberlin, M
Greenshaw, Ursula Adelaide B. A., Vassar, 1921.	Los Angeles	Med. gr.	Madroño
[5]Greenwood, Donald Layton	Los Angeles	LD 70–11	13 Salvatierra
[5]Gregersen, Albert Instrup	Solvang	Geol. 7·129+181	525 Forest-p
Gregersen, Halfdan Ingstrup A. B., Stanford, 1922.	Solvang	Span. 41·139+206	525 Forest-p
Gregersen, Magnus Instrup	Solvang	Bot. 106+121	525 Forest-p
[14]Gregerson, Diamond Earl	Fertile, Minn.	Engl. sp. 6–7	Alvarado Hall
[5]Gregory, Elizabeth Jackson	Pasadena	Hist. 121+21	Sigma Kappa
Greiner, Francis LaSha	Libby, Mont.	LD 45+13	340 Embarcadero-p
[1]Greppin, Ernest H.	Los Angeles	LD 32–13	Alpha Sigma Phi
[5]van de Griendt, Gerardus	Los Gatos	LD 43+29	125 Encina
Griffin, Carroll Brent	Granville, Ohio	M.E. 85·70+10	449 Encina
[5]Griffin, Christopher John A. B., Stanford, 1922.	Fox Lake, Wis.	Educ.-Law 79·107+64	362 Chan'g-p
[4]Griffin, Eldon A. B., Harvard, 1916.	Enid, Okla.	Hist. gr.	Madroño

[5]Griffin, Frank Joseph	Redwood City	LD 80+57	400 Broadway, RC-rc
[12]Griffin, Harold Park	Los Angeles	Econ. 35·151+40	316 Encina
A. B., Stanford, 1922.			
[2]Griffith, Willard	Santa Ana	Econ. 70·110+87	PhiKappaSigma
A. B., Stanford, 1922.			
Grill, Margaret Eleanor	Los Angeles	LD 89+44	236 Roble
[5]Grinstead, Marion Owen	Palo Alto	Chem. 42·75–1	165 Stanford
Griswold, Gale Charles	Modesto	LD 68+121	110 Encina
[5]Grondona, Charles Arata	San Francisco.	Chem. 159+58	Delta Tau Delta
Gronen, Edith Mary	Terra Bella	LD 35–7	320 Roble
[5]Gross, Richard Philip	San Francisco	LD 94+14	27 Encina
[124]Grossman,Sydney Samuel	Los Angeles	Econ. 18·60–9	560 Encina
[5]Grothe, Marion Ware	Wayne, Neb.	Econ. 44·113–9	451 Encina
[4]Grover, Mabelle Chace	Santa Cruz	LD	4 Lasuen
Grover, Otto Jay	St. Anthony, Ida.	LD 50+24	451 Encina
[12]Grundy, Arthur Evan	Los Angeles	Econ. 13·70+37	Beta Theta Pi
[5]Guerra,CarlosE.Perez	MexicoCity,Mex.	LD 47–4	611 Bryant-p
[1]Guevara, Joseph	San Salvador, C. A.	LD 14–25	533 Bryant
[124]Gump,RobertLivingston	San Francisco	LD 15+22	201 Encina
[12]Gunby, Suzanne Victoria	Long Beach	LD 24·15+30	265 Roble
[23]Gundelfinger, Walter J.	Pittsburgh, Pa.	Geol. ‡ 33–8	718 Bryant-p
[4]Gunter, Clyde Elton	Fresno	Econ. 184+216	224 Encina
A. B., Stanford, 1922.			
Gunther, Chester Oliver	Portland, Ore.	LD 69+6	Beta Theta Pi
[1]Gunther, Marie Agnes	Redwood City	Econ. 93–1	147 Grand, RC-rc
Gurley, Lee Sivley	Redwood City	M.E. 154+18	Sigma Nu
Gutsch, Irma Siglinde	Alameda	Econ. ‡ 42–9	149 Roble
[13]Haberfelde, Clarisse Ruth	Bakersfield	Econ. 73·107+39	Gamma Phi Beta
A. B., Stanford, 1922.			
Haberfelde, Edmund Carl	Bakersfield	Econ. 185+99	Phi Gamma Delta
A. B., Stanford, 1922.			
Haberkern, William M.	Richmond, Ind.	Pol.S. 87·45+3	612 Waverley-p
Hackett, Durlin Bates	Palo Alto	Econ. 50·126+56	105 Byron-p
[1]Hackett, George Anthony	Palo Alto	LD 51+0	219 Homer-p
Hackett, Russel Graham	Spokane, Wn.	C.E. 15·89–7	DeltaKappaEpsilon
[5]Hadley, Edwin Wilson	San Diego	Law gr.	707 Bryant-p
A. B., Stanford, 1921.			
Hadley, George Charles	San Francisco	LD 57+14	Alpha Tau Omega
[12]Hadsel, Fred Latimer	Oxford, Ohio	Lat. gr.	453 Channing-p
A. B., Upper Iowa, 1902; A. M., Yale, 1906.			
[12]Hagan, Nell	Pasadena	Engl. ‡ 7–8	335 Roble
[5]Hahn, Young D.	Dinuba	Chem. 39·91+15	Chinese Club
Haizlip, Raymond	Portland, Ore.	Econ. 42·138+66	PhiGammaDelta

[5]Hale, Marshal, Jr. San Francisco LD 90+0 Sigma Nu
[5]Hale, Newton Johnston Ross LD 63–20 Sigma Alpha Epsilon
Hales, Walter Hodgson Tacoma, Wn. M.E. 97+73 421 Encina
[13]Haley, Bernard Francis Hollywood Econ. 45·138+248 21 Sequoia
A. B., Stanford, 1922.
Haley, Cecil Irving San Jose LD 90+10 Theta Delta Chi
Hall, Donald James Omaha, Neb. Econ. sp. 117+12 PhiKappaSigma
Hall, Doris McElroy San Dimas LD 39+10 320 Roble
[1]Hall, Eleanor Hammond San Mateo LD 60+19 Delta Gamma
[12]Hall, Elizabeth Pierson Los Altos LD 33+8 Los Altos-la
Hall, Ernest Mosiah St. George, Utah Med. gr. 2023 Larkin, SF-st
A. B., Brigham Young University, 1905; M. S., State College, Washington, 1916.
[12]Hall, Giles Stark, Jr. Los Angeles LD 29–10 Alpha Delta Phi
Hall, Helene Marie San Mateo Span. gr. Sigma Kappa
A. B., Stanford, 1920, A. M., 1922.
Hall, John Los Angeles LD 53+50 19 Alvarado
Hall, Mildred Jessica Fresno Chem. 138+138 319 Roble
[4]Hall, Norma Pierce San Francisco Engl.120·72–10 KappaAlphaTheta
[12]Hall, Robert Robbins Nevada City LD 45+77 63 Sequoia
Hall, Victor Ernest Victoria, B.C., Can. Pre-Clin. 135·45+67 327 Lytton-p
A. B., Stanford, 1922.
[1]Hambleton, Frances F. Palo Alto Educ. gr. 1028 Bryant-p
A. B., Stanford, 1920.
Hamilton, Ernest Pasadena M.E. 137+95 Beta Theta Pi
Hamilton, Harold Pierpont Hollywood Med. gr. 1312 Cowper-p
A. B., Stanford, 1922.
[12]Hamilton, Kenneth Howard Westley LD 65+18 1027 Emerson-p
[12]Hamilton, Ray Leroy Delano Chem. 180+115 419 Encina
A. B., Stanford, 1922.
Hamlin, Harris H. Stanford Univ. Law 185+4 Sig. Alpha Epsilon
A. B., Stanford, 1922.
Hamlyn, Thomas Joseph San Francisco Min. gr. Beta Theta Pi
A. B., Stanford, 1921.
[3]Hammer, Otto Los Angeles LD 16+11 301 Encina
[234]Hammond, Elmer H. Alameda LD sp. 28+23 275 Hamilton-p
[1]Hammond, Robert Ray, Jr. Stockton LD 7–15 915 Waverley-p
Hancock, Donald Welborn Riverside Econ. 86+5 Delta Tau Delta
Hand, Arlene Zweifel Hillyard, Wn. Latin gr. Madroño
A. B., Stanford, 1920.
[1]Hanna, Alma Bernice Houston, Tex. Pre-Med. gr. 241 Roble
A. B., Rice Institute, 1919.
Hanner, John Flint San Jose Econ. 67·117+76 999 E. Julian, SJ
A. B., Stanford, 1922.
[24]Hanrahan, Marshall S. Palo Alto LD 12–25 1022 Waverley-p

[12]Hansell, Elvan Amos — Fortuna — LD 44+40 — Alvarado Hall
Hansen, Hazel Dorothy — San Mateo — Greek gr. — Madroño
A. B., Stanford, 1920, A. M., 1921.
[4]Hansen, Natalie — Redwood, City — LD 6+5 — 312 Stambaugh, RC-rc
Hanson, Frederic Dooley — Chicago, Ill. — LD 22·93+141 — 230 Encina
[1]Hanson, Margaret A. — San Jose — LD — 774 S. 8th, SJ-sj
Harcourt, Irl Roy — Fresno — M.E. 103+86 — 210 Encina
Harcourt, William Ernest — Millers, Nev. — LD 91+31 — 27 Sequoia
[3]Hard, Burton Stedman — Ripon — LD 51+1 — Alpha Tau Omega
[34]Hardwick, PerryEmerson — SanFrancisco — Law gr. — 229 Steiner, SF-sf
A. B., California, 1920; J. D., Stanford, 1922.
Hardwicke, Kenneth Charleton — Orosi — LD 87+30 — Alpha Kappa Lambda
Hardy, Anne — San Diego — Psych. gr. — Kappa Kappa Gamma
A. B., Stanford, 1921.
[4]Hardy, Mary Bourne — Susanville — Engl. gr. — 171 Roble
A. B., Michigan, 1912.
[12]Hare, Dorothy — Salinas — Econ. 180+127 — Alpha Phi
A. B., Stanford, 1922.
Hare, Hugh Frederick — LasCruces, N.M. — LD 53·45–3 — 409 Encina
Harger, Donald K. — Riverside — LD 66+78 — 122 Encina
[1]Hargrave, Edgar J. — Yorba Linda — LD ‡ 7–11 — 402 Encina
Harker, Charles Andrew — San Jose — C.E. 21·159+12 — Theta Delta Chi
A. B., Stanford, 1922.
Harker, Edgar Louvau — Palo Alto — Chem. gr. — 260 Homer-p
A. B., Stanford, 1921, Engineer, 1922.
Harker, James Broadbent — Los Angeles — LD 80+27 — 62 Sequoia
Harlow, Charles Vendale — Long Beach — LD 43–14 — 1040 Emerson-p
Harman, George Samuel — San Francisco — LD 63+13 — 410 Encina
[12]Harold, Ritchie H. — Indianapolis, Ind. — LD ‡ 7–3 — Delta Tau Delta
Harper, Edward Baldwin — Los Altos — Law 32·116+24 — Los Altos-la
Harrell, Lorimer Benton — Merced — LD 42+22 — Sigma Alpha Epsilon
[4]Harris, Arthur James — PortAngeles, Wn. — LD — Sequoia
Harris, David W. Clancy — Pasadena — Pre-Med. 21·64+94 — 327 Encina
Harris, Edwin Loring — San Francisco — Chem. 22·84+40 — Delta Tau Delta
[1]Harris, Glen Albert — Whittier — LD 4–15
[5]Harris, Helen Estelle — Los Angeles — Ed.G.A.137+52 — KappaKappaGam.
Harris, Philip John — Danville — Pre-Clin. 135·46+31 — 406Ramona-p
A. B., Stanford, 1922.
Harris, Richard Charles — Cando, N. D. — Geol. 102·103+37 — Zeta Psi
A. B., Stanford, 1922.
[12]Harrison, Edna Alice — Los Angeles — Sch. Ed. gr. — 344 Roble
A. B., Stanford, 1921.
Harrison, George Russell — Halcyon — Phys. gr. — Reservoir Drive
A. B., Stanford, 1919, A. M., 1920, Ph. D., 1922.

Harroun, Margaret	Malaga, N.M.	LD 44+47	372 Roble
[234]*Hart, Harry P. A. B., Stanford, 1916.	South Pasadena	C.E. gr.	1953 Leman, SP-sp
Harter, Doris Irene	Woodland	LD 29+31	257 Roble
[5]Hartley, James John	Napa	Geol. 103+1	644 Guinda-p
Hartley, Wilder Wellington	Terminal	LD 84–13	Mountain View-mv
[5]Hartman, Hans A. B., Stanford, 1921.	Crockett	Med. gr.	2321 Sacramento, SF-sf
Hartman, Richard Homer A. B., Stanford, 1922.	Palo Alto	M.E. gr.	313 Everett-p
Hartranft, S. Glenn	Fullerton	LD 81–9	Kappa Sigma
[4]Hartwig, George H. A. B., Stanford, 1913.	Northfield, Minn.	Engl. gr.	11 Union
Hartzell, Lucie Eloise	Los Angeles	LD 69+14	Delta Gamma
[12]Harvey, Catherine	Salt Lake City, U.	Math. 93-30+35	364 Roble
[23]Harvey, Milburn Gregory	Santa Ana	LD 24+5	Delta Upsilon
[5]Harvey, Rowland Hill A. M., Southern California, 1920.	Chicago, Ill.	Hist. gr.	146 Pope-p
[4]Harwell, Charles Albert B. S., California, 1914.	Berkeley	Educ. gr.	225 Union
Harzfeld, Arthur Jerome A. B., Stanford, 1920, J. D., 1922.	San Francisco	Law gr.	303 Encina
Haseltine, Theodore Raymond	Crockett	LD 46+67	947 Waverley-p
[12]Hashimoto,Tadaichi	Yamaguchi,Japan	Chem. sp. 97+6	Japanese Club
Hastings, Robert	Palo Alto	LD 37+11	U.S.P.H.S.Hosp.24-p
Hauge, Helen Cree A. B., Stanford, 1922.	Long Beach	Engl. 46-134+73	Pi Beta Phi
[4]Haviside, Russell Harry	San Francisco	LD	24 Sequoia
Hawes, John Raymond	San Jose	Chem. 4-164+278	329 Union
Hawkenson, Edna A. B., Stanford, 1922.	Stanford Univ.	Econ. 180+158	218 Roble
Hawkins, Robert Ziemer	Reno, Nev.	LD 47+39	10 Sequoia
[12]Hawkins,Stanley Lloyd	Mountain View	LD 51+13	Mountain View-mv
[1]Hawkins, Wayne Lee	Mountain View	Pol. S. 67–33	Mountain View-mv
Hawley, James LeRoy	Palo Alto	M.E. 127+98	440 Webster-p
[4]Hawley, Olive Lazetta	San Diego	LD	333 Roble
[23]Hayashi, Francis Minoru	San Francisco	LD 29+37	Japanese Club
[124]Hayes, Gordon Bruce	Saratoga	Chem. 12-74+43	Saratoga-s
Hayes, Jay Orlo, Jr.	Edenvale	Econ. 131–6	Phi Delta Theta
[1]Hayes, John Campbell	Pasadena	LD 29–17	228 Encina
Hayne, William Alston B.	San Francisco	Geol. 130+96	510 Encina
Hays, George P.	Palo Alto	LD 55+25	635 Cowper-p
Hays, Harford Holmes	Palo Alto	LD 86+11	825 University-p

[23]Hays, Paul Raymond	San Mateo	LD 31+47	421 Crescent, SM-sm
Hays, Samuel Ewing	Palo Alto	C.E. 10·205+17	350 Encina
A. B., Stanford, 1922.			
[1]Hays, Silas Woodson	Palo Alto	LD 9–22	412 Kipling-p
Hays, Walter Grant	Palo Alto	LD 62+87	635 Cowper-p
[4]Hayward, Gladys	San Jose	LD ‡	Roble
Hazeltine, John Criley	Prescott, Ariz.	Econ. 134·41+11	Kingscote
Hazeltine, M. Bonsall	Prescott, Ariz.	LD 24+1	Kingscote
Hazeltine, Matthew Emery	San Jose	Med. gr.	Union
B. S., California, 1916; A. B., Stanford, 1922.			
[34]Healey, James C.	San Francisco	Law sp. 9+0	426 Encina
[5]Healton, Ivan Freeman	La Habra	Span. 90·82+21	304 Union
Heater, William Earl	Ritzville, Wn.	Geol. 120–7	Phi Kappa Psi
Heath, Ronald Wayland	Palo Alto	C.E. gr.	1147 Ramona-p
A. B., Stanford, 1922.			
[4]Heath, Phyllis Thoburn	Palo Alto	Econ. 15·87+95	1147 Ramona-p
Heckendorf, Percy Charles	Santa Barbara	Law 128+13	44 Encina
[12]Hedges, Amelia Louise	Palo Alto	Pol. S. gr.	558 Lincoln-p
A. B., Stanford, 1921.			
[1]Heffernan, John J.	Syracuse, N. Y.	Econ. gr.	362 Encina
A. B., Stanford, 1921.			
[234]Heidig, Alfred Gerhard	Palo Alto	LD sp. 32+28	275 Hamilton-p
[4]Heikens, Rose Anne	Fostoria, Iowa	Educ. ‡	315 Everett-p
Heine, Wesley Meredith	Los Angeles	Econ. ‡ 48–15	Alpha Sigma Phi
Heldman, Walter Lloyd	Amarillo, Tex.	LD 40+3	448 Encina
Hellman, James Gardner (Mrs.)	Woodside	Engl. gr.	W-dside-Kohl Bldg., sf
B. A., Wellesley, 1914.			
[1]Hellwig, Erle E.	Mount Eden	Econ. 41·140+13	Kappa Sigma
A. B., Stanford, 1922.			
[1]Helser, Charles Willard, Jr.	Menlo Park	Pol.S. 59+44	Menlo Park
[12]Helser, John Henry	Atherton	LD 33+15	Sigma Nu
[1]Hendershot, Robert Henry	Los Angeles	LD	551 University-p
[234]Henderson, Alex. D., Jr.	Lovelock, Nev.	Geol. 37–6	Sigma Alpha Epsilon
Henderson, James Gordon	Los Angeles	Med. gr.	2105 Calif., SF-sf
A. B., Stanford, 1921.			
[23]Henderson, James Ralph	Stanford Univ.	Econ. 105+109	3 Sequoia
[2]Henderson, Paul F.	Spokane, Wn.	C.E. 125+84	302 Encina
[34]Henderson, Virginia June	Los Angeles	LD 31–14	367 Roble
Henderson, Ynez Marie	Campbell	Bot. gr.	Sigma Kappa
A. B., Stanford, 1922.			
[4]Hendrickson, Carl E.	Minneapolis, Minn.	Educ. gr.	68 Sequoia
A. B., Minnesota, 1920.			
[4]Hendrix, Herman	Mesa, Ariz.	Educ. gr.	Alexandria-p
A. B., Northwestern, 1901.			

[234]Henry, Archie Ward — Pullman, Wn. — Med. gr. — 127 Lowell-p
B. S., Washington State College, 1910.

[4]Henry, James Bernard — Santa Clara — Math. gr. — Uni. Santa Clara, SC-sc
A. B., Gonzaga, 1919, A. M., 1920.

[4]Henry, Mary Bess — Santa Ana — Educ. gr. — 9 Salvatierra
A. B., Chicago, 1902; A. M., Stanford, 1921.

[3]Henry, Warner White — Los Angeles — LD 11+8 — 56 Sequoia

[1]Hensold, Gaylord Wm. — Tonica, Ill. — Econ. 45·142+112 — 219 Encina
A. B., Stanford, 1922.

[5]Hepburn, Samuel B. — Bloomington, Ind. — Hist. gr. — Box 186, Los Altos-la
A. M., Indiana, 1916.

[4]Hepp, Louis Oscar — Grants Pass, Ore. — Educ. gr. — Runnymede-p
A. B., Williamette, 1917.

[3]Herdman, Dorothy Isabel — Palo Alto — LD 5–11 — 935 Cowper-p

Herdman, Robert Eugene — Los Angeles — LD 37–20 — 345 Encina

[5]Herkman, Paul Veillat — Menlo Park — Fr. gr. — Box 565, MP-mp
A. B., Stanford, 1922.

[3]Herlitz, Ivar — Stockholm, Sweden — E.E. gr. — 11 Salvatierra
M. S., Union College, 1921.

Herndon, Arthur Herbert — San Francisco — M.E. 99·91+112 — 207 Hawthorne-p
A. B., Stanford, 1922.

Heron, Ivan Clyde — Watsonville — Med. gr. — 3732 Sac'to, SF-sf
A. B., Stanford, 1919.

Herrington, Dorothy Francine — Ogden,U. — Fr 80+66 — Alpha Omicron Pi

[4]Herriott, Marion Eugene — St.Johns,Mich. — Educ. gr. — 805 Channing-p
Ph. B., Chicago, 1921.

[3]Herzog, Maxine Leona — San Francisco — LD 30+16 — 269 Roble

Hess, Chester N. — Ogden, Utah — Engl. 39·84+23 — 34 Sequoia

Hesselmeyer, Clarence Theo. — Mayfield — M.E. 113+191 — Box 214, M-m

[4]Hester, Willis Elston — Mountain View — Educ. gr. — 542 Church, MV-mv
B. S., Colorado, 1905.

Hesthal, Cedric Edward — San Francisco — LD 82+31 — 39 Sequoia

[12]Heublein, Clarence M. — Fox Lake, Wis. — Law gr. — 433 Kipling-p
B. A., Wisconsin, 1918.

[4]Heuer, Margaret Alvina — Alameda — Educ. gr. — 239 Roble
A. B., Nevada, 1917.

[12]Heupgen, Claude — Mons, Belgium — M.E. 45·63+4 — 548 Encina

[5]Hevey, Edward, Jr. — Brentwood — LD 70·71+78 — 226 Encina

Hewitt, Mary Elizabeth — San Jose — Med. gr. — Sutter & Octavia, SF-sf
A. B., Stanford, 1921.

[1]Hey, Clifford Lester — Hayward — LD 62+5 — Kappa Sigma

[124]Hickman, Richard — San Francisco — LD 15+2 — 35 Sequoia

[23]Hicks, Blanche Davis — Venice — LD 32+41 — 378 Roble

Hicks, Charles Roger — Los Gatos — Hist. gr. — 104 Wilder, LG-lg
A. B., Clark College, 1915; A. M., Stanford, 1922.

[5]Hicks, James Herndon	San Diego	Econ. 136+49	Chi Psi
Higby, Myron Claude	Los Angeles	Econ. 154+53	Alpha Sigma Phi
Higgins, Clyde Randolph	Redwood City	M. E. 139+75	R.F.D.,Bx34, RC-rc
[5]Hilgesen, James	Mayfield	P-M.111·33+13	1022PA,M-B66,p
Hill, Andrew Putnam, Jr.	San Jose	Educ. 132·49+53	451 Addison-p
A. B., Stanford, 1922.			
Hill, Elinor Walker	La Jolla	Chem. 186+183	200 Roble
A. B., Stanford, 1922.			
[4]Hill, Esther Davison	Kansas City, Mo.	Ed.P.E. ‡	348 Roble
[4]Hill, Jessie Methven	Kansas City, Mo.	Sch.Ed gr.	346 Roble
A. B., Missouri, 1917, B. S., 1919.			
[234]Hill, Mary Anderson	San Diego	Engl. gr.	Gamma Phi Beta
A. B., Vassar, 1889.			
Hill, Roy Irving	Medford, Ore.	C.E. 180+28	213 Union
A. B., Stanford, 1922.			
Hinckley, Barton Armin	Hollywood	LD 91+36	225 Encina
Hinckley, Richard Hoagland	Hollywood	LD 88+38	Delta Kappa Epsilon
[4]Hind, Alice Gertrude	Redwood City	LD	248 Roble
[12]Hindes, Brooks Edward	Menlo Park	LD 39–15	Menlo Park-mp
[3]Hines, Don Carlos	San Jose	LD 15+30	541 E. Santa Clara, SJsj
[4]Hinkle, Evelyn Rebecca	San Jose	LD	248 Roble
[124]Hinton, Wm. Frank	Hansen, Ida.	Geol. 110+12	Chinese Club
[12]Hirata, Henry Hikoichi	Japan	Chem. 162+75	735 Ramona-p
[5]Hirschfeld, Ellis	Palo Alto	Law gr.	432 Hawthorne-p
A. B., Stanford, 1921.			
Hirschman, Reginald Marion	San Mateo	LD 81+9	229 Encina
[1]Hitchcock, Donald M.	Paso Robles	Geol. 36·60–11	352 Encina
[12]Hitchcock, Lewis G.	Bakersfield	LD 43+3	17 Alvarado
Hjelm, Harold LeRoy	Turlock	LD 37+45	1160 Bryant-p
[4]Hoar, George Everett	Bakersfield	LD 9–17	620 Gilman
Hobro, William L.	San Francisco	LD 59+23	416 Encina
Hobson, Charles Wilfred	Whittier	LD 43·47+58	12 Sequoia
[23]Hodges, Michael Bryan	Yuma, Ariz.	Hist. 115+69	332 Encina
[4]Hodgkinson, Melvin Greig	Vallejo	LD	
[34]Hodgson, Foresta	Yonkers, N. Y.	LD 33+9	Roble
[4]Hodgson, Marshall Jewell	Morenci,Ariz.	LD	22 Sequoia
[4]Hodgson, Walter Park	Morenci,Ariz.	LD	Sequoia
Hoey, George William	Menlo Park	Greek gr.	Middlefield, MP-mp
A. B., St. Mary's College, 1908.			
[4]Hofflund, John Leslie	El Cajon	LD	312 Union
Hoffman, Mary Virginia	Pasadena	Econ. 63·117+158	Pi Beta Phi
A. B., Stanford, 1922.			
Hoffman, Rolland William	Oakland	LD 41–14	428 Encina
Hoffmann, Floyd Edward	Richfield,Utah	LD 43+6	Theta Chi

Hoffmann, Paul Edward	Oakland	LD 60+49	403 Encina
[5]Hogle, Milton Monroe, Jr.	Lincoln	Law 112+23	16 Alvarado
[34]Hoisholt, Estella	San Jose	Ed.G.A.115·56+96	498 S.5th,SJ-sj
[5]Holbrook, Bernard D.	Ann Arbor,Mich.	LD 45·51+76	Alpha Delta Phi
[234]Holland, Kenneth Deleval	Los Angeles	LD 15–16	30 Sequoia
[1]Holland, Virginia Lee	Fresno	Psych. ‡	157 Roble
Hollembeak, Hugh Ryan	Palo Alto	LD 47+42	334 Lincoln-p
[5]Hollingshead, John Hinton	Boise, Ida.	Econ. 35·131+98	Theta Chi
[12]Hollingsworth, James Edwin A. B., Stanford, 1922.	Hemet	Econ. 94·86+87	352 Encina
Hollingsworth, Lytle Webster	San Jose	M.E. 7·141+143	Theta Chi
[12]Holliway,HarrisonEmery	SanFrancisco	LD 39–12	362 Encina
[4]Holloway,Marie Edna B. S., Columbia, 1914.	WhitePlains,N.Y.	Engl. gr.	Kappa Alpha Theta
Holmes, Alden Walton A. B., Stanford, 1922.	Redlands	Econ. 180+84	Theta Delta Chi
Holmes, Charles Chester	Redlands	LD 48·44+47	Theta Delta Chi
Holmes, Harlan Banta A. B., Stanford, 1922.	Ashland, Ore.	Zool. 135·47+78	84 Sequoia
Holmes, William Willard	Hollister	Geol. ‡ 64–15	416 Encina
Holston, Ashly Stanford A. B., Stanford, 1922.	Mayfield	Geol. 193+65	200 Leland, M-m
[2]Holven, Alfred Leonard A. B., Stanford, 1922.	Long Beach	Chem. 40·142+66	Alpha Sig. Phi
[12]Hood, Donaldson Gould	Portland, Ore.	LD 30·45+18	Kappa Sigma
Hood, Margaret Henrietta	Long Beach	LD 93+166	201 Roble
Hooper, Alfred S.	San Francisco	LD 57+47	324 Encina
[4]Hooper, Laura A. B., South Dakota, 1919.	Chicago, Ill.	Educ. gr.	227 Roble
[5]Hoover, Herbert, Jr.	Stanford Univ.	LD 39+5	57 Sequoia
Hoover, Mildred Brooke	Palo Alto	Fr. 128+103	450 Melville-p
Hoover, William B.	Ardmore, Okla.	LD 66·46–15	408 Encina
[5]Hopper, Max Foster	Palo Alto	LD 51+61	57 Sequoia
Hopper, Velma Aileen A. B., Stanford, 1922.	Rocky Ford, Colo.	Econ. 182+157	Chi Omega
Hopper, Veta	Rocky Ford, Colo.	Fr. 46·89+96	Chi Omega
Hoppin, Virginia	Woodland	LD 56+13	1019 Bryant-p
Horn, Arthur Walton A. B., Stanford, 1922.	San Jose	Econ. 184+44	434 Encina
[12]Horn, Everett Ellis	Ritzville, Wn.	Phyl. 43·74+46	Alpha Tau Omega
[12]Hornaday, Francis Paul A. B., Nevada, 1920.	San Francisco	Law gr.	260 Homer-p
Horner, John Mears	Honolulu, Hawaii	Chem. 105·96+26	109 Encina
Hornlein, Hugo Garvin	San Francisco	LD 46+1	351 Encina

[12]Horstmeyer, Arend Louis — San Francisco — LD sp. 31–22 — 433 Encina
Horton, Helen Eloise — Newcastle, Wyo. — Hist. 46·139+83 — 250 Roble
A. B., Stanford, 1922.
[5]Hosepian, Haig M. — Sanger — Med. gr. — 312 Union
A. B., Stanford, 1922.
Hosepian, Vaughn — Sanger — Phyl. 151+63 — 531 Encina
[4]Hosmer, Forest Eugene — Modesto — LD — 233 Union
[2]Hotaling, Lorice Katharine — Pasadena — Engl. 96+41 — Delta Delta Delta
[234]Houck, George Mayhew — Los Angeles — LD 18–2 — Alpha Tau Omega
[12]Housh, Cecil Noble — Red Rock, Okla. — Geol. 67·118+8 — 530 Encina
A. B., Stanford, 1922.
[4]Houston, Samuel James — Los Angeles — Educ. gr. — 84 Sequoia
A. B., Occidental, 1920.
[3]How, Hock H. — Palo Alto — LD 15+9 — 1129 Cowper-p
[23]Howard, Charles S., Jr. — San Francisco — LD 0–11 — Grant Rooms, Univ.-p
[5]Howard, Edward Athelstone — Los Angeles — LD sp. 10·39–2 — Zeta Psi
Howard, Evelyn — Sacramento — LD 65+96 — 146 Roble
Howard, Lindsay Coleman — San Francisco — LD 28–26 — Delta Kappa Epsilon
[5]Howard, Lloyd Gibbs — San Francisco — Law gr. — Kappa Alpha
A. B., Stanford, 1921.
[12]Howard, Margaret — Oakland — Econ. gr. — Kappa Alpha Theta
A. B., Stanford, 1922.
Howarth, Kingsley K. — Fitchburg, Mass. — LD 47·48+20 — Theta Delta Chi
Howe, Henry V. — Eugene, Ore. — Geol. gr. — 627 Emerson-p
A. B., Oregon, 1916; Ph. D., Stanford, 1922.
Howe, Ralph Denny — Palo Alto — LD 59+32 — 955 Channing-p
Howe, William Harvey — Phoenix, Ariz. — C.E. 135·46+11 — 207 Hawthorne
A. B., Stanford, 1922.
Howell, James Mint, Jr. — San Jose — Econ. 92+47 — Delta Tau Delta
[4]Howells, Thomas H. — Salt Lake City, U. — Educ. gr. — 10 Salvatierra
A. B., Utah, 1915.
Howes, Helen Dorothy — Omaha, Neb. — LD 44+35 — 308 Roble
Hoxsie, Earl Justin — Folsom — M.E. 198+3 — 514 Encina
A. B., Stanford, 1922.
[12]Hoyt, Jonathan — Stanford Univ. — Pre-Med. 102·20–5 — Alvarado Hall
[1]Hubbard, Charles — San Francisco — M.E gr. — Theta Chi
A. B., Stanford, 1919.
[12]Hubbard, Harley Corwin — Los Angeles — LD 47+20 — Delta Upsilon
[23]Hubbard, Mary Elizabeth — Hollywood — Engl. ‡ 24–6 — 275 Roble
Hubbs, Harry — Palo Alto — Econ. 180+204 — 135 Cowper-p
A. B., Stanford, 1922.
Hubner, Albert Arthur — Wheatland — LD 29–11 — 125 Encina
Hudson, Carroll Delmar — Los Angeles — M.E. 182+28 — Alpha Tau Omega
A. B., Stanford, 1922.

[1]Huff, William Earlin Mountain View Geol.123-72+4 Mountain View-mv
A. B., Stanford, 1922.
[4]Hughes, Annie Augusta San Francisco LD sp. Roble
[5]Hughes, Donald Dudley Perry, Okla. Geol. gr. 223 Union
B. A., Oklahoma, 1921.
Hughes, Frederick Marshall Palo Alto Econ. 133+79 Delta Chi
Hughes, Robert Elwyn San Francisco Med. gr. 1859 Green, SF-sf
A. B., Stanford, 1921.
[5]Hughes, Thomas Patrician Palo Alto Chem. gr. 566 Everett-p
A. B., Stanford, 1921, A. M., 1922.
[1]Hughes, William Floyd Marietta, Ohio Geol. gr. 742 Bryant-p
A. B., Marietta College, 1921.
Hugo, Merrill S. Mountain View M.E. 137+25 Mountain View-mv
Hull, Marie Ellen San Mateo LD 74+28 330 Roble
[5]Hull, Perry M. Black River Falls, Wis. LD ‡ 41–14 County Road
[4]Humpheys, Mack Sanger LD Pacific Grove-pg
Huneke, Albert Hussey Los Angeles LD 60+20 Alpha Delta Phi
Hungerford, Beecher F. Upland Law 90-93+0 321 Union
A. B., Stanford, 1922.
Hunie, Fred Blydenburgh Palo Alto M.E. 20-164+30 359 Emerson-p
A. B., Stanford, 1922.
Hunnicutt, Leland G. Whittier Med. gr. 210 Union
A. B., California, 1921.
[5]Hunt, Dorothy Elizabeth Anaheim Econ. 120-59+0 Delta Delta Delta
Hunt, Faye Josephine Twin Falls, Ida. Engl. 21-161+246 234 Roble
A. B., Stanford, 1922.
[34]Hunt, Leonard Wilbur San Francisco Econ. sp. 8–6 120 Encina
[4]Hunt, Margaret Clark Ojai Valley Engl. ‡ 228 Roble
[2]Hunter, Clarence Lester Redlands Med. gr. 2321 Sacramento,SF-sf
A. B., Stanford, 1918.
[1]Hunter, Hume G. Auburn, N. Y. LD 3–11 10 Cabrillo
[4]Hunter, Keats Odin Gate, Wn. LD Sigma Chi
[12]Hunter, Kenneth Hume Menlo Park Min. gr. Bx. 213, MP-mp
A. B., Stanford, 1920.
[28]Huntington, Evelyn Hope Palo Alto LD 45+17 516 Kingsley-p
Huntington, Herbert Arthur Long Beach Pre-Med. 78-49+15 515 University
Hurd, Joubert Bryan Medford, Ore. Econ. 41-85+6 Alpha Sigma Phi
Hurlbut, Dorothy Los Angeles Span.138+1 Kappa Kappa Gamma
[4]Hurley, Charles Clifton Albion Hist. gr. Union
A. B., Stanford, 1920, A. M., 1921.
[5]Hurley, Jere Elwood Albion Law gr. 347 Encina
A. B., Stanford, 1920.
Hurley, Peter Richard Albion LD 37+0 40 Encina

[5]Hurt, Everett Price B. S., Arizona, 1921.	Stanford Univ.	Min. gr.	536 Encina
Hutchens, Francis Case	Los Angeles	Lat. 143+259	55 Encina
[5]Hutchings, Raymond R. A. B., Indiana, 1920; A. M., Stanford, 1922.	Marysville, Ind.	Educ. gr.	214 Union
[1]Hutton, Donald Voorhes	Bozeman, Mont.	Econ. 63–26	Phi Kappa Psi
Huxtable, Mamie G. Ph. B., Chicago, 1918.	Normal, Ill.	Hist. gr.	429 Forest-p
Hyatt, Persis A. B., Stanford, 1921, A. M., 1922.	Sacramento	Ent. gr.	Kappa Alpha Theta
Hyatt, Phyllis	Sacramento	Chem. 36·81–3	Kap. Alpha Theta
Hyde, Carol Elizabeth	Palo Alto	LD 89+144	335 Roble-p
Hyde, William Avery	Los Altos	Chem. 4·133+222	218 Encina
Ichikawa, Yoshio	Sacramento	LD 43+41	Japanese Club
[4]Igo, Albert Jerome	Long Beach	Chem. ‡	635 Bryant-p
Imokawa, John Kiichi	Fukuoka, Japan	M.E. 135+163	2 Alvarado
Ingebritson, Reuben C.	Palo Alto	C.E. 63·115+109	223 Channing-p
[23]Ingram, Fred Raymond	Cleves, O.	LD 33+12	342 Homer-p
[13]Innes, Wells William	Santa Ana	Econ. 45·47+27	Delta Tau Delta
[5]Ira, Gordon H.	Lynch, Neb.	Chem.-Med. 135·38+20	149 Web.p
Ireland, Anne Scott A. B., Mills College, 1921.	Palo Alto	Engl. gr.	166 Bryant-p
[4]Irving, Laurence A. B., Bowdoin, 1916; A. M., Harvard, 1917.	Menlo Park	Phil. gr.	
[4]Irwin, Eugene Jered A. B., Stanford, 1920.	Berkeley	Educ. gr.	
[23]Irwin, Jacob Carney	Twin Falls, Ida.	LD 12·30+9	31 Encina
[23]Irwin, John B., Jr.	Minneapolis, Minn.	LD 15·30+29	Delta Upsilon
Irwin, Kathryn	Lindsay	Econ. 164+8	Chi Omega
[5]Irwin, Thomas George	Twin Falls, Ida.	Econ. 125+88	544 Encina
Irwin, William Hyde	Brookdale	LD 84+41	35 Sequoia
[24]Isensee, Frank Paul	Baltimore, Md.	LD sp. 12+0	304 Encina
Iseri, Kamehachi Thomas A. B., Stanford, 1921, Engineer, 1922.	Los Angeles	Chem. gr.	Japanese Club
Ishii, Frank Toru A. B., Stanford, 1922.	Long Beach	Econ. 180+18	225 Union
[1]Jackson, Luke	Mount Sumner, N.Mex.	LD ‡	311 Middlefield-p
Jacobsen, Theodor S.	Santa Barbara	App. Math. 170+218	44 Sequoia
James, Arthur George A. B., Stanford, 1921, Engineer, 1922.	Palo Alto	E.E. gr.	215 Churchill-p
[12]James, David John	Riverside	LD ‡ 32–21	Delta Tau Delta
[1]James, Martha A. B., College of the Pacific, 1919.	Palo Alto	Pre-Med. gr	735 Homer-p
James, Norris Ehrhorn	Palo Alto	LD 85+13	215 Churchill-p

James, Wright Elwood	Compton	Geol. 44·68+53	Phi Gamma Delta
[13]Jameson, Ruth Avis	Corona	LD 76–3	214 Roble
[3]Jameson, Wesley J., Jr.	St. Paul, Minn.	Econ. 64–13	327 Union
Jamieson, Hamer H.	Chicago, Ill.	Law gr.	616 Forest-p
Ph. B., Chicago, 1920; J. D., Stanford, 1922.			
Jamison, Mary Muir	Santa Monica	Span. 153+89	Gamma Phi Beta
[12]Jamison, Olga Lancefield	Hollywood	Chem. ‡ 23–7	280 Roble
[5]Janssen, Clayton Robson	San Francisco	LD 53–18	Alpha Delta Phi
[4]Jarvis, Russell Boyden	Greeley, Colo.	Ed.P.E. gr.	Phi Delta Theta
A. B., Stanford, 1921.			
[234]Jayne, Burt H.	Casa Grande, Ariz.	LD sp. 32+32	426 Ramona-p
Jenkins, Kendall Reed	Glendale	C.E. 129+115	381 Lincoln
Jenkins, Richard Leos	Culver City	LD 55+67	27 Salvatierra
[1]Jenks, Christopher M.	San Francisco	Econ. 180+25	Phi Gamma Delta
A. B., Stanford, 1922.			
Jennings, Gertrude Edith	Redlands	Engl. gr.	209 Roble
A. B., Redlands, 1920.			
[12]Jennings, Ida	Stanford Univ.	LD 29+40	165 Roble
[5]Jennings, Thomas Murdock	Menlo Park	Econ. 21·128+15	Kappa Alpha
Jensen, Robert Phillip	Sacramento	LD 44+53	416 Webster-p
[124]Jergins, Allen Andrew	Los Angeles	LD 37+23	Delta Upsilon
[1]Jertberg, Gilbert Henry	Chino	Law gr.	Theta Chi
A. B., Stanford, 1920, J. D., 1922.			
[3]Jewell, Marion Richard	Palo Alto	LD 23+6	327 Waverley-p
[1]Johansen, Augustus	Fresno	LD ‡	251 Hawthorne-p
Johansen, Donald Alexander	Arcata	LD 32+3	14 Sequoia
John, Harold Thomas	Stanford Univ.	M.E. 130+7	333 Encina
Johnson, Carl Edward	Turlock	Pre-Clin. 135·57+39	31 Sequoia
A. B., Stanford, 1922.			
[3]Johnson, Dorothy Edith	Burlingame	Econ. 102+34	333 Occidental, B-b
[2]Johnson, Edith Katherine	Gd. Junct., Colo.	LD ‡ 14+7	159 Roble
[12]Johnson, Glenn Walter	Ceres	Econ. 59·121+5	21 Encina
A. B., Stanford, 1922.			
[4]Johnson, Grace Hope	Hughson	LD	244 Roble
[5]Johnson, Oliver Wolcott	Los Angeles	Chem. gr.	333 Lincoln-p
A. B., Stanford, 1921.			
Johnson, Paul Condit	Denver, Colo.	M.E. 90·94–1	220 Encina
Johnson, Richard Edwin	Satsop, Wn.	M.E. 138+180	333 Encina
Johnson, Richard Woodburn	Palo Alto	LD 47+20	363 Melville-p
Johnson, Wanda Lee	Ontario	Hist. 141+171	351 Roble
[14]Johnson, Willard L.	San Francisco	Econ. 125+13	337 Encina
[234]Johnston, Charles Francis	Los Angeles	LD 15–20	137 Encina
Johnston, Evelyn Hatch	San Jose	Econ. 136+26	Kappa Kappa Gam.

Johnston, Frank R.	San Jose	Med. gr.	2631 Clay, SF-sf
A. B., Stanford, 1917.			
Johnston, Madeline	San Francisco	Med. gr.	2420 Webster, SF-sf
A. B., Reed College, 1919.			
[12]Johnston, Petra Beatrice	RedwoodCity	Educ. gr.	444 Hamilton, RC-rc
A. B., Stanford, 1914.			
Johnston, Russell Rueben	San Jose	Hist. 23·158+72	Phi Kappa Psi
A. B., Stanford, 1922.			
[12]Johnston, Theckla Jean	Berkeley	Med. Dept. gr.	2422 Durant, B-b
A. B., California, 1921.			
[4]Johnston, William R.	San Francisco	LD	Sequoia
[5]Johnston,Winifred Belle	Stanford Univ.	Fr. 38·128+40	4 Alvarado
[4]Jones, Arthur W.	Fresno	LD	7 Alvarado
[5]Jones, Evelyn Mabel	Santa Clara	Econ. 119+64	152 Roble
Jones, Gertrude Flint	Palo Alto	Med. gr.	1233 Taylor, SF-sf
A. B., Stanford, 1919.			
Jones, Guy Peter	Durham	Chem. 67·131+54	444 Encina
A. B., Stanford, 1922.			
Jones, Louis Ernest	Roseville	LD 89+21	56 Sequoia
Jones, Paul Carlton	Toledo, O.	LD 45+68	Alexandria Hotel-p
[5]Jones, Ralph Joe	Calgary, Can.	LD 40–10	68 Sequoia
[4]Jones, Robert L.	Palo Alto	Hist. gr.	641 Gilman-p
B. A., South Methodist, 1917; A. M., Texas, 1920.			
[12]Jones, Wilson Stephens	Los Angeles	Law gr.	Kappa Sigma
A. B., California, 1921.			
[234]Jopson, Frank G.	San Jose	Econ. 88+6	Alpha Sigma Phi
[5]Jordan, Eric Knight	Stanford Univ.	LD 98+71	Xazmin House
[4]Jordan, John S.	Grass Valley	Educ. gr.	25 Salvatierra
A. B., Denver, 1916.			
Joseph, Gertrude Jennie	Mt. View	Hist. 181+71	311 Roble
A. B., Stanford, 1922.			
[5]Joseph, Paul Mitchell	Los Angeles	LD 99+87	119 Encina
Joyce, Elizabeth Grace	Ft.Benton,Mont.	LD 51+44	178 Roble
[5]Judah, Nelson Van	Los Angeles	Econ. 6·107+32	Delta Upsilon
[23]Judd, Grace	Glendale	LD 30+21	107 Roble
Judge, Anna Frances	Hollister	Econ. 182+101	Kappa Kappa Gam.
A. B., Stanford, 1922.			
[4]Justus, Mabel Louise	Brooklyn, N. Y.	Nursing gr.	890 Boyce-p
A. B., Syracuse, 1912.			
Kahle, Francis Clifford	San Diego	Law 7·124–8	310 Encina
[23]Kahn, Edgar Myron	San Francisco	LD 25–17	521 Encina
Kai, Gunki	Kumamoto, Japan	Econ. gr.	728 Ramona-p
A. B., Stanford, 1921.			
Kallam, Floyd Loren	San Diego	M.E. gr.	Theta Xi
A. B., Stanford, 1921, Engineer, 1922.			

[12]Karns, Russell Elmore A. B., Ohio State University, 1920.	Cleveland, Ohio	Med. gr.	9 Cabrillo
Kauffman, Francis Michael	Chicago, Ill.	LD 89+19	9 Sequoia
[5]Kazan, James	Philadelphia, Pa.	C.E. ‡ 40–6	225 Union
Keck, Howard Burrell	Washington, Iowa	Engl. 136+53	Theta Chi
Keesling, Wana Myrle	Campbell	LD 47+29	242 Roble
[4]Kefauver, Grayson N. A. B., Arizona, 1921.	Tucson, Ariz.	Educ. gr.	Sigma Alpha Epsilon
[4]Keiler, Emma Dorothea	Pasadena	LD sp.	109 Roble
[3]Keller, Thomas	San Jose	LD sp. 0–13	R.R. 1, Bx. 431, SJ-sj
[5]Keller, Walter Paul	Portland, Ore.	Law 123+42	Sigma Alpha Epsilon
[5]Kelly, Handel Whittaker	San Jose	LD 86+14	732 Emory, SJ-sj
[12]Kelly, Harold Richard A. B., Bucknell, 1915; J. D., Stanford, 1922.	Stanford Univ.	Law gr.	Kingscote
Kelly, James Bryden	Palo Alto	Ent. 112–3	Kappa Sigma
Kelly, James Thomas	Santa Ana	LD ‡ 37+11	Theta Delta Chi
Kelly, Phillippa Elizabeth A. B., College of the Pacific, 1921.	San Jose	Engl. gr.	732 Emory, SJ-sj
Kelso, George Cameron	Palo Alto	LD 43+7	151 Melville-p
[1]Kemnitzer, Luis Emmett	Mill Valley	LD 4·32+13	Delta Upsilon
[1]Kemnitzer, William Johnson	Mill Valley	LD 4·50+17	Delta Upsilon
[1]Kemp, Louise Rebecca	Santa Clara	LD 10+8	Box 90, SC-sc
[23]Kengla, Blanche Margaret	San Francisco	Chem. 120·24–10	375 Roble
Kennedy, Harry Fowler	Palo Alto	LD 55–6	427 Cowper-p
Kennedy, Laura Elizabeth	Palo Alto	Econ. 4·136+150	334 Lincoln-p
Kennedy, Lewis Harold	Long Beach	C.E. 108·98+75	344 Encina
Kennedy, Lou A. B., Iowa, 1911; A. M., Stanford, 1922.	Eldora, Iowa	Educ. gr.	Madroña
Kennedy, Robert B.	San Jose	LD 98+68	841 Willis, SJ-sj
[12]Kennedy, Thomas Hart	Normal, Ill.	LD 41·42+2	Beta Theta Pi
Kennedy, Vernon F. A. B., Stanford, 1922.	Palo Alto	Pre-Clin. 180+55	427 Cowper-p
[1]Kent, Florence Bartram	Halcyon	LD 15+3	240 Kellogg-p
[4]Kenworthy, Mildred	Eagle Rock	LD sp.	360 Roble
[4]Keplinger, Ulysses N. A. B., Colorado, 1907.	Santa Clara	Hist. gr.	925 Harrison, SC-sc
[234]Kerr, Anita	Los Angeles	Hist. 65·55+0	Delta Gamma
Kerr, Paul Francis B. S., Occidental, 1919.	Stanford Univ.	Geol. gr.	322 Encina
Kettenburg, Robert John	San Diego	M.E. 40·98+4	124 Encina
[5]Kibby, Ira Wesley B. A., Colorado State Teachers' College, 1918.	Palo Alto	Educ. gr.	707 Addison-p
[12]Kidd, Worth	Los Angeles	LD 33·17+18	Wm. Warren Sch.-mp

Kiggens, Clarence Edward	Lindsay	Econ. 126+72	Phi Gamma Delta
Kildale, Malcolm Brus A. B., Stanford, 1921.	Eureka	Geol. gr.	425 Encina
Kildow, Thomas Monroe	Tiffin, Ohio	Phil. 87·49+44	108 Encina
[12]Kiler, Elza Leslie	Santa Barbara	Bot. 47·73+23	65 Sequoia
[5]Kilpatrick, Wylie	Stanford Univ.	Law 18·142+120	540 Encina
Kiltin, Russell	Duluth, Minn.	Econ. 5·53+69	Union
[4]Kimber, John Anthony Morris A. B., Pennsylvania, 1915, A. M., 1920.	Los Angeles	Educ. gr.	1121 Bryant-p
King, Charles Samuel	Portland, Ore.	Econ. 146+102	437 Encina
King, Donald Eliot	Porterville	Zool. 145+161	College Ter., M-m
[1]King, Douglas Low	Palo Alto	LD 28+51	Box 505-p
King, Edward Dimmick	Palo Alto	LD ‡ 62+9	Cowper Court-p
[23]King, Elizabeth Gardiner	Los Angeles	LD 13–3	307 Roble
King, Ernest Charles	Mountain View	LD 3·59–1	Mountain View-mv
[3]King, Florence Helen A. B., Pomona, 1922.	Hemet	Span. gr.	Madroño
[23]King, Frances Jenella	Palo Alto	LD 13–7	234 Embarcadero-p
[3]King, Francis Richard	Redwood City	Econ. 2–9	4 Duane, RC-rc
King, Harold Nelson	Sacramento	Phyl. 23·72+21	241 Hawthorne-p
[5]King, John Preston	Jasper, Ala.	Law 13·117+0	545 Bryant-p
King, Raymond Irvin	Porterville	Chem. 143+69	821 Stanford, M-m
Kingrey, Waive Lotha	Santa Ana	Econ. 141+82	Gamma Phi Beta
[12]Kinnear, Arthur	San Jose	LD 47+25	421 N. 4th, SJ-sj
Kinney, Paul Burt A. B., Stanford, 1921.	San Francisco	Med. gr.	1474 Sacramento, SF-sf
Kinney, Roland Thomas	Los Angeles	Law 153+71	Zeta Psi
[34]Kinney, Ross Ellsworth	San Jose	Educ. ‡ 15+9	480 S. 15th, SJ-sj
Kinnison, Court John	Boise, Ida.	LD 95+81	52 Sequoia
Kirby, Dorrell William	Darwin	Geol. 43·92+53	28 Sequoia
[124]Kirby, James Millard	Corona	LD 90+108	346 Encina
Kirk, Howard M.	Bozeman, Mont.	LD 94+3	9 Sequoia
[23]Kirksey, Morris Marshall A. B., Stanford, 1922.	Eagle Rock	Phil. 101·95+48	Encina
Kirkwood, Arthur C.	Colo. Spgs., Colo.	M.E. 138+8	Phi Kappa Psi
Kirtlan, Edward Albert	Covina	LD 40–5	723 Hamilton-p
Kistler, Samuel Stephens A. B., Stanford, 1921, Engineer, 1922.	Santa Rosa	Chem. gr.	Alpha Kappa Lambda
[12]Kitow, Edwin K.	Tokyo, Japan	LD 67–17	Japanese Club
Klahn, Myrtle Olive A. B., Stanford, 1922.	Orange	Span. 90·96+150	116 Roble
Klebahn, Frederick W.	Honolulu, Hawaii	LD 23–32	Sigma Chi

Kleckner, Thos. Madison A. B., Stanford, 1921.	Mt. View	Sch. Ed. gr.	344 Bush, MV-mv
[5]Kleiser, George Wm.	San Francisco	Econ. 61–9	Sigma Nu
[5]Klingberg, Frances A. B., So. California, 1920.	Long Beach	Med. gr.	1906 Webster, SF-sf
Klink, Carol	San Francisco	LD 47+62	274 Roble
[1]Klipsch, Wm. Marion V. A. B., Stanford, 1922.	Hope, Ind.	Educ. 116·64+14	105 Emerson
[5]Klyver, Fred, Jr.	Fresno	Phyl. 63–12	204 Encina
Knappen, James Fawcett	Campbell	Econ. 140+176	73 Sequoia
Knipe, Charles Frederick	SanFrancisco	LD 48–7	826 Waverley-p
[234]Knowlton, Donald Ryder A. B., Colorado, 1920.	Palo Alto	Min. gr.	652 Everett-p
Knox, George Livingston A. B., Stanford, 1922.	Palo Alto	Geol. gr.	325 Everett-p
[34]Knudtzon,KermitFrederick	Chicago,Ill.	LD 14+5	431 Lytton-p
[5]Koba, Fred Michio	San Francisco	LD 89+22	Japanese Club
Koch, George Otto	San Francisco	LD 86+52	502 Encina
[12]Koehler, Max Conrad	San Jose	M.E. 90–4	451 Encina
Koepfli, Joseph Blake	Los Angeles	Chem. 98+31	Alpha Tau Omega
[1]Koffman, Oscar	Detroit, Mich.	Law 63·19–12	Menlo Park
[234]Kolberg, Everett Erick	Phoenix, Ariz.	Econ.-Law ‡ 30–2	DeltaTauDelta
Konishi, William Hiroshi	Lemoore	M.E. 132–4	Japanese Club
[12]Korte,KendallCharles	MedicalLake,Wn.	Geol. ‡ 55–31	1831 Waverley-p
[1]Korts, Bernard Hagedorn	Oxnard	Chem. 106–7	545 Bryant-p
Kotzias, Alexander C.	Athens, Greece	C.E. 95+67	72 Sequoia
Kraemer, Eric Eugene	San Diego	LD 68+2	Phi Kappa Sigma
[4]Kraemer, Mary Webster A. B., Stanford, 1897, A. M., 1917.	San Diego	C.Lit.(Lat.) gr.	Kingscote
Kraft, Warren Hamilton	San Francisco	Chem. 155+69	Phi Delta Theta
[4]Kranz, Milton A.	Wasco	Educ. 105·18+14	Sequoia
Krisher, Dorothy L. A. B., Stanford, 1921, A. M., 1922.	Palo Alto	Econ. gr.	925 Hamilton-p
Krock, Frederick Henry A. B., Stanford, 1922.	Los Angeles	Pre-Clin. 134·94+72	Sigma Nu
Krogness, Melville A. R.	Burlingame	LD 46–2	235 Encina
[12]Kropp, Walter John	San Francisco	LD 0–14	9 Sequoia
[12]Kroyer, John O.	Oshkosh, Wis.	M.E. ‡ 33–23	Sigma Chi
Krueger, Albert Paul	San Francisco	Zool. 48+85	555 Waverley-p
[23]Kruger, Rudolph	San Jose	Law 20–22	340 N. 5th, SJ-sj
[5]Kuckein, Ernst Prussing	Menlo Park	LD sp. 39–8	Box 623, MP-mp
Kuhne, Freda Grandfield	Santa Barbara	Econ. 90·44+30	Pi Beta Phi
Kuhnel, Gustaf Lawrence	San Francisco	LD 72–13	2415 25th st., SF-sf

[1]Kulmann, Charles Albert	Palo Alto	M.E. 104+80	216 High
[12]Kylberg, Brother Lars	Merced Falls	LD 41+22	136 Encina
Lacey, Lorin Daryl	Monterey	M.E. 147+25	Delta Upsilon
[23]Lacombe, Elizabeth A. B., Stanford, 1922.	Mayfield	Hist. 135-44+48	611PaloAlto,M-m
Lacombe, Leo George St. Patrick's Seminary, 1910; A. M., Stanford, 1921, Ph. D., 1922.	Mayfield	Fr. gr.	611 Palo Alto, M-m
[23]Laforgue, Alexander	San Francisco	Chem. 58–29	Alpha Delta Phi
[5]Lagodzinski, Lewis	Stanford Univ.	LD sp. 41+43	4 Sequoia
[1]Lake, Merrill Evans	Burbank	LD 49–2	Kappa Alpha
Lamb, Henry Clarence	Fallbrook	LD 40+27	341 Columbia, M
[4]Lambert, Dorothy	Oakland	LD	Roble
[1]Lampson, Myrle Robbins	Palo Alto	Engl. 84+91	281 Embarcadero-p
[12]Lamson, David Albert	Palo Alto	LD 41+37	319 Poe-p
Lamson, Margaret E. B. A., Oregon, 1919.	Palo Alto	Med. gr.	2411 Clay, SF-sf
Landels, Edward Durley	Los Altos	Econ.-Law 15-142+151	20 Sequoia
[5]Landis, Philip Flint	Oakland	Pol.S. 137+107	54 Sequoia
[4]Landreth, Austin A. B., Indiana, 1919.	Pendleton, Ore.	Educ. gr.	61 Sequoia
Landweer, Andre Eisso	Santa Clara	LD 99+6	116 Encina
Lane, John Calhoun	Oakland	M.E. 134+130	124 Encina
Lane, John Sterling	Detroit, Mich.	LD 18-73+16	350 Encina
Lang, Mary Edith A. B., Stanford, 1922.	Fullerton	Bot. 90-96+59	221 Roble
Lang, Robert Edward Lee	Dallas, Tex.	Econ. 138+51	112 Encina
Langer, Ruth Anna A. B., Stanford, 1922.	San Francisco	Psych. 182+188	202 Roble
Langerman, I. Newton	Portland, Ore.	Econ. 90-46+12	16 Encina
Langford,LesterWatts	NorthPlatte,Neb.	LD 90+70	Phi Delta Theta
Langford, Russell R.	NorthPlatte,Neb.	Pol.S.-Law146+97	PhiDeltaTheta
Lanterman, Horace W.	Mandan,N.Dak.	Econ. 94-45+70	627 Homer-p
[124]Lantz,ClaraM.Beatrice A. B., California, 1920.	Sunnyside,Wn.	Educ. gr.	1121 Bryant-p
Lapp, Burton Leonard	San Jose	LD 91+14	428 Encina
[3]Lardi, Albertram Martha	Fruitvale	Lat. 81–10	624 University
[12]Largey, Marie Elizabeth	Calistoga	LD 32+29	328 Roble
[1]Larimer, Aline Rose A. B., Stanford, 1922.	Hollywood	Econ. gr.	Alpha Omicron Pi
Larsen, Joseph Urban A. B., Stanford, 1922.	Warren, Ariz.	Geol. 5-189+2	316 Encina
Larson, Irving Brooks A. B., Stanford, 1922.	Palo Alto	Chem. 180+96	216 Encina
[12]Larue, James Van Boskerck	Oakland	LD 21–32	65 Sequoia

Laub, Egbert Warren — Santa Cruz — LD 93+36 — 550 Addison-p
Lauer, Donald Taylor — Payette, Idaho — LD 48+89 — 635 Bryant-p
Lauer, L. Marguerite — Monroe, Mich. — Educ. gr. — Madroño
A. B., Wellesley, 1915; A. M., Stanford, 1922.
Laughlin, Herbert Sidney — Los Angeles — LD 9·78+2 — 81 Sequoia
[5]Laughlin, Reginald Short — San Jose — Law gr. — Phi Kappa Psi
A. B., Stanford, 1921.
Lavelle, Michael James — Los Angeles — Law sp. 29·91+8 — Union
[2]Law, Raymond Frakes — Elko, Nev. — Psych. 52·55+31 — 39 Sequoia
Lawrence, Grove — San Mateo — LD 53+20 — 855 Jefferson, SM-sm
Lawrence, Helen Jean — San Mateo — LD 89+78 — Delta Gamma
Lawrence, Sarah Elizabeth — Millbrae — Fr. 119–10 — Kappa Alpha Theta
[234]Lawson, Dick — Long Beach — LD 26+2 — Delta Kappa Epsilon
[5]Lawson, James Wilmer — Long Beach — LD 18–10 — Ramona Rooms
Lawyer, James Van Buren — Yonkers, N.Y. — Fr. 135·46+37 — Union
A. B., Stanford, 1922.
[1]Layden, George Edward — Delta, Colo. — Econ. ‡ 4–16 — 176 Bryant-p
[234]Leach, Raymond Hotchkiss — Sunnyvale — Hist. gr. — Box 456, Sunnyvale-s
A. B., Oberlin, 1904.
[5]Leach, Wanda Connell — Los Angeles — Ed. G. A. 128+3 — Chi Omega
[4]Leader, Mary Putnam — Dowagiac, Mich. — LD sp. — Roble
Learnard, Mary — Gilroy — Fr. 141+154 — 312 Roble
Learnard, Polly Dee — Gilroy — LD 45+59 — 314 Roble
[5]Lechten, A. Madeleine — San Francisco — Lat. 25·94+8 — 305 Roble
Lee, Beatrice — Las Animas, Colo. — LD 80+22 — Alpha Omicron Pi
[5]Lee, Chiu Hung — Canton, China — Educ. 16·79–4 — Box 702, MP-mp
[5]Lee, Ruth Dorinda T. — Stanford Univ. — Chem. 181+132 — 11 Alvarado
A. B., Stanford, 1922.
Lee, William George, Jr. — Auburn — LD 92+53 — 52 Sequoia
[1]Leeds, Albert Wagner — Los Angeles — Law gr. — Kappa Alpha
A. B., Stanford, 1920, J. D., 1922.
Leeds, Fred Barclay — Los Angeles — LD 86+55 — Kappa Alpha
Leffingwell, Marion Preston — Pasadena — Econ. 90·47+32 — 340 Roble
[1]Legerton, Victor Arthur — San Francisco — LD sp. 15–26 — 239 Yale-p
Leh, Marcus DeWitt — Trident, Mont. — LD 88–29 — Sigma Alpha Epsilon
[1]Leicester, Elsie Allen — San Francisco — Hist. 185+182 — Kappa Kappa Gam.
A. B., Stanford, 1922.
[5]Leiser, William Frederick — Twin Falls, Ida. — Law gr. — 540 Encina
A. B., Stanford, 1921.
[3]Leistner, Hugo — Palo Alto — LD 24–14 — Base Hosp.-p
[5]LeMarinel, Kenneth F. — Spokane, Wn. — Geol. 129+22 — Alpha Delta Phi
[124]Leonard, James M., Jr. — Virginia City, Nev. — LD 38–8 — 136 Encina
[1]Leppo, Harrison McNear — Santa Rosa — LD 7–15 — 1116 Ramona-p

Levison, Walter Herman	San Francisco	LD 72+38	447 Encina
Levit, Bertram William	San Francisco	LD 85+128	307 Encina
[5]Levy, Scherl Maurice	Joplin, Mo.	LD 93+163	25 Salvatierra
[3]Lewis, Daniel Petrov	Yakima, Wn.	LD sp. 5+0	611 Bryant-p
[1]Lewis, Joe Leslie	San Jose	Ent. 16-86+59	470 N. 3d, SJ-sj
[1]Lewis, Orme	Phoenix, Ariz.	LD 39–33	232 Encina
Lewis, Richard Campbell	Mountain View	LD 54+5	Mountain View-mv
[5]Lewis, Warren Frederic A. B., Stanford, 1922.	Stanford Univ.	Engl. gr.	59 Sequoia
Liebendorfer, Donald Eugene	Modesto	LD 90+53	403 Encina
[1]Lies, Margaret Anna K.	Waterville,Wn.	Econ. 109+59	Gamma Phi Beta
[5]Likely, Homer E. A. B., Stanford, 1922.	Stanford Univ.	Chem. 34-147+72	347 Encina
Liljenstein,GustafM.	NewLondon,Conn.	Chem. 134+59	530 Emerson-p
[12]Lilly, John Kenneth A. B., Stanford, 1920, J. D., 1922.	Ashland, Ore.	Law gr.	Theta Delta Chi
[23]Lima,IdaMaryMargaret A. B., Stanford, 1922.	Nahant,Mass.	Educ. 135-48+33	169 Roble
[1]deLima, Jorge Alves A. B., Stanford, 1922.	Sao Paulo, Brazil	M.E. 65-124+101	528 Encina
[5]Lindblom, Evald Vincent	San Jose	LD 16–5	106 Encina
Lindersmith, Harry Edgar A. B., Stanford, 1922.	Westwood	Law 135-46+72	302 Encina
Lindsey, Hugh Miller	Modoc, Ind.	LD 50+73	110 Encina
[12]Link, John Wiley, Jr.	Houston, Tex.	LD 11+10	Kappa Alpha
[5]Linn, George Irving A. B., Stanford, 1919, A. M., 1922.	Palo Alto	Educ. gr.	657 Addison-p
[4]Linn, Louis P. A. M., California, 1918.	Fresno	Educ. gr.	675 Channing-p
Linneman, Lawrence Joseph	Watsonville	LD 83+17	550 Addison-p
[34]Lissman, Marcel Alfred	Sacramento	LD sp. 15+30	236 Encina
[23]Litcher, Lloyd	Palo Alto	LD 1–26	167 Webster-p
[12]Litchfield, Everett S. A. B., Stanford, 1922.	Palo Alto	Econ. 26-154+50	Cowper Court-p
[5]Litton, Charles Vincent	Redwood City	LD 49+62	Box 231, RC-rc
[12]Livermore,LeroyCornett	Portland,Ore.	LD 17–22	16 Alvarado
[124]Livesay, Ruth Haines A. B., Pacific University, 1917.	Stanford Univ.	Engl. gr.	Kingscote
[5]Livesay, Thayne Miller A. B., Pacific University, 1917.	Stanford Univ.	Educ. gr.	Kingscote
Livingston, Arthur D. A. B., Stanford, 1922.	Modesto	Chem. gr.	Kingscote
Lloyd, Leonila Marie A. B., George Washington, 1919; A. M., Stanford, 1922.	Washington, D.C.	Econ. gr.	Kingscote

[1]Lobree, Floyd	San Francisco	LD 13–32	541 Encina
Lockett, Charles Cornelius	Alhambra	LD 41+17	325 Encina
[13]Lockton, Eugene Andrew	Windsor	LD 78+52	2130 Emerson
[1]Lockwood, Helen Fidelia	Pasadena	Econ. 14·90+9	Kappa Kappa Gam.
Loder, Arthur W.	Palo Alto	Law sp. 93+3	426 Florence-p
Loder, Edward Stark	Palo Alto	C.E. 109+37	426 Florence-p
Loe, Harris Davis	Wilsall, Mont.	LD 94+14	334 Encina
Loewenson, Leland H.	Portland, Ore.	LD 94+24	532 Encina
Loewenstein, Alfred B.	San Francisco	LD 92+28	400 Encina
Lofland, Evelyn	Palo Alto	LD 46+31	1001 Ramona
Logan, William Archie	San Diego	LD 14·45+37	Phi Delta Theta
Lomax, John Donald	San Francisco	LD 78+5	312 Emerson-p
Lomax, Marian A. B., Stanford, 1922.	Palo Alto	Math. 85·96+119	1545 Waverley-p
Lombard, George Porter	Yakima, Wn.	LD 46–1	Phi Gamma Delta
Londahl, Cyrus Ausgar	Fort Scott	LD 44+10	65 Sequoia
Long, Eldon Addington	San Francisco	LD 105+125	116 Encina
[5]Long, Hubert Edward	Palo Alto	Zool. 45·76+3	365 Forest-p
[4]Long, Kathryn Marie	Santa Barbara	Educ.	221 Roble
Longfellow, Henry W.	Washington,D.C.	LD 50·58+13	Alpha Sigma Phi
[5]Loomis, Frederick Claxton	Los Angeles	Chem. 6·129+58	Alpha Delta Phi
[1]Looze, Homer Cyril	Yuba City	LD 10+0	Alvarado Hall
Loper, A. Margaret	Fresno	LD ‡ 29–22	277 Roble
[5]Lopin, Anna Mildred A. B., Stanford, 1922.	Sunnyvale	Chem. gr.	255 Roble
[12]Lord, E. R., Jr.	Hutchinson, Kans.	LD 16+1	435 Hamilton-p
[3]Lorraine, Laura May	Palo Alto	LD 30+30	460 Homer-p
[23]Loskamp, Alvin Powell B. S., Syracuse, 1921.	Los Angeles	Geol. gr.	Zeta Psi
Lothrop, Marcus	San Bernardino	LD 83+31	26 Sequoia
[5]Lounsbury, John Lester B. S., Missouri State Teachers' College, 1922.	Hume, Mo.	Educ. gr.	223 Cowper-p
[4]Loutzenheiser, Gertrude	Denver, Colo.	LD sp.	178 Roble
Love, Charles Ashton, Jr. A. B. Doane, 1914.	Atascadero	Med. gr.	2321 Sacto.. SF-sf
[234]Love, Mary Craven	Riverside	LD 30+23	159 Roble
[1]Lovejoy, Gerard Herbert	Glendale	LD sp. 24–20	Beta Theta Pi
[234]Loveless, Joseph E.	Johnson City, N.Y.	LD 70+71	39 Sequoia
Lowers, Virginia Belle A. B., Stanford, 1922.	Los Angeles	Hist. 200+303	333 Roble
Lowstetter, Mary Elizabeth A. B., Stanford, 1922.	Pasadena	Econ. 15·165+53	Sigma Kappa

Loye, Percival Elliot Minneapolis, Minn. E.E. gr. 234 Embarcadero
B. S., Minnesota, 1921; Engineer, Stanford, 1922.
[5]Lucas, Charles F. Park Place, Ore. LD 9·26+0 563 Addison-p
Lucas, William Dennis Yakima, Wn. LD 70+0 Chi Psi
Ludeke, Frederic Sebastian Shandon LD 103+79 230 Encina
[4]Ludwig, Helen Mountain View LD R. 2, Box 371, MV-mv
[4]Lund, Alice Henrietta Arcata Educ. gr. 325 Roble
A. B., Kansas, 1914, A. M., Chicago, 1918.
Lund, Henry Joseph San Jose Med. gr. 497½ Prevost, SJ-sj
A. B., Stanford, 1919.
Lundquist, Dell Theodore Middletown Chem. 4·190+279 409 Encina
A. B., Stanford, 1922.
Lundquist, Leonard C. San Francisco Min. gr. 25 Alvarado
A. B., Stanford, 1922.
Lunsford, Helen Elizabeth Palo Alto LD 49–6 317 Emerson-p
[12]Lusignan, Harry Richard Stockton LD 34–7 21 Sequoia
[34]Lynch, Frank Carlin Somerset, Mass. Econ. gr. 201 Union
Ph. B., Brown University, 1921.
Lynn, Harold Frederic Palo Alto Geol. 100+23 181 Tasso-p
Lyon, John Herschel Montrose, Colo. LD 91+76 Sigma Alpha Epsilon
[4]Lyon, Lela Goldie Kansas City, Mo. Educ. ‡ 345 Harvard, M-m
Lyon, Lois Valentine San Francisco Med. gr. 320 6th Ave., SF-sf
A. B., California, 1917.
Lytle, Aten Lee, Jr. Los Angeles LD 62+2 311 Union
[23]Lytle, Harvey Maxwell Billings, Mont. LD sp. 24–2 206 Encina
Maas, Walter Leo, Jr. Ocean Park LD 29–20 326 Encina
[4]MacArthur, Elizabeth San Francisco Educ. gr. 23 Alvarado
A. B., Stanford, 1920.
McBride, Rexford Wm. San Francisco Bact.-Med. 176+49 15 Mirado
[23]McBurney, Raymond Dean Los Angeles Pre-Med. 119·30+16 542 Encina
McCaffery, B. Emmet Portland, Ore. LD 96+101 203 Encina
[23]McCague, James Sidney Sunnyside, Wn. Econ. 97+21 334 Lincoln-p
[3]McCahan, Kathryn Cochran Los Angeles LD 23+4 377 Roble
[12]McCall, Archie Livingston Phoenix, Ariz. LD 27–18 Delta Chi
McCallister, Charles H. Long Beach LD 45+13 Phi Kappa Psi
McCandless, William W. Inglewood LD 43–8 Chi Psi
McCann, Sara Boyd Los Angeles Engl. 102+12 Pi Beta Phi
McCanse, Mabel Letitia Santa Rosa LD 98+65 249 Roble
[4]McCarty, Honora Palo Alto Zool. 10·150+213
[234]McCarty, Mary Rita Stanberry, Mo. Pre-N. 19·74+33 104 Roble
[3]McCleave, Kathryn Eloise Berkeley LD ‡ 14+13 227 Roble
McClellan, Elizabeth deL. San Mateo Fr. 140+24 Chi Omega
[12]McClellan, H. Wallace Klam'th Falls, Ore. Geol. 183+219 309 Encina
A. B., Stanford, 1922.

[4]McClenathan, Ruth H. San Diego Educ. ‡ 354 Roble
McClinton, Ralph Edwin Burlingame LD 65+26 1201 Cabrillo, B-b
McClung, Lois E. Colorado Spgs., Colo. Sch. Ed. gr. Alpha Omicron Pi
A. B., Stanford, 1922.
McClure, Thomas C. Los Angeles Econ. 48·83+15 Kappa Alpha
McCombie, Harold E. San Andreas Pol.S.-Law 188+53 202 Union
A. B., Stanford, 1922.
Macconel, Dermont N. Honolulu, Hawaii M.E. 89+23 Sigma Chi
[34]Macconel, Robert L. Honolulu, Hawaii Hist.-Jn. ‡ 18–2 Sigma Chi
McConnel, Frederick J. Carmel C.E. 103·77+80 508 Encina
A. B., Stanford, 1922.
McConville, Francis James San Jose Lat. gr. 179 Park, SJ-sj
A. B., Seton Hall College, 1912; A. M., Stanford, 1922.
McCormick, Earl Orvis Palo Alto Educ. gr. 429 Forest-p
B. S., Iowa College, 1907; A. M., Stanford, 1922.
McCormick, Eugene Stanford Univ. Econ. 186+4 117 Encina
A. B., Stanford, 1922.
[12]McCray, Edward Ivor, Jr. Burlingame LD sp. 34–6 58 Encina
McCrea, Alexander W. Los Angeles Law 121–7 503 Encina
McCrea, Francis Randolph Long Beach Med. gr. 1931 Webster, SF-sf
A. B., Stanford, 1922.
McCready, John Donald Redlands LD 80+11 Theta Delta Chi
[5]McCreery, John Harold Coronado LD 14–15 7 Alvarado
[1]McCue, Gerald Everett Colusa Chem. 78–12 81 Sequoia
[4]McCully, Leona Hadley Chico Educ. gr. 14 Salvatierra
A. B., Indiana, 1905.
[5]McCutchan, J. Stanley Keokuk, Iowa Econ. 123+29 Alpha Delta Phi
McDermoth, Alanson Wood Palo Alto Chem. gr. 790 Palo Alto-p
A. B., Stanford, 1920, A. M., 1921.
MacDonald, Frank Allan San Francisco Med. gr. Y.M.C.A., SF-sf
A. B., Stanford, 1921.
[34]McDonald, Howard Austin Beaver, Pa. Geol. ‡ 9–5 Ramona Apts.-p
McDonald, Juilliard Santa Rosa LD 41+16 Delta Kappa Epsilon
McDonald, Marjorie K. Toppenish, Wn. Fr. 54·96+135 Gamma Phi Beta
[234]McDonald, Robert Emmett Berkeley Geol. 36·66–29 Sigma Chi
[5]McDonald, Thomas E. Roganville, Tex. Law 67·114+141 411 Lytton-p
A. B., Stanford, 1922.
[4]McDonnell, Mary Agnes Tacoma, Wn. Engl. 42·15+17 Roble
Mace, John Lyndon San Francisco LD 85+49 Zeta Psi
McElligott, Merian H. San Francisco LD 92+13 222 Roble
[1]McEntire, Gerald C. Long Beach LD 28–25 Sigma Chi
[12]McEwen, Harold L. Portland, Ore. LD 57–13 357 Encina
McFarland, Virginia V. T. San Mateo Econ. 99–2 Kappa Kappa Gam.
[1]McFarlane, Christine San Francisco LD 61+33 150 Roble

[12]MacFarlane, Theresa — Mountain View — LD 54+1 — Gamma Phi Beta
[23]McGee, Elisabeth Mann — Oakland — Econ. gr. — Delta Gamma
A. B., Stanford, 1921.
[5]McGill, George F. — Stanford Univ. — Econ. 117+29 — Sigma Nu
[4]MacGillivray, Malcolm E. — Urbana, Ill. — Educ. gr. R. 1, B. 28, Los Gatos-lg
A. B., Stanford, 1920; A. M., University of Chicago, 1921.
[7]MacGovern, Sara Gwendolyn — Vallejo — Engl. ‡ 12–9 — Roble
McGrath, Morgan James — Palo Alto — LD 53–2 — 567 Forest-p
McGregor, Frances Jean — Pontiac, Ill. — LD 15–2 — 360 Roble
McHose, John Cresco — Ashland, Ohio — LD 92+56 — Phi Delta Theta
Macintosh, Richard R. — Santa Monica — LD 88–3 — Sigma Nu
McIntyre, Glenn H. — Santa Clara — LD 102+45 — Alpha Kappa Lambda
Mack, Helen Elizabeth — Oakland — Fr. 100·43+37 — Alpha Phi
Mack, Henry Clayton, Jr. — Bakersfield — LD 97+34 — Delta Chi
[5]McKague, Bruce Carrol — Altoona, Pa. — Geol. 34·76–21 — Kappa Alpha
[23]McKay, Donald Cope — SaltLakeCity,U. — LD 30+43 — 202 Encina
[1]McKay, Neil John — Hedgesville, Mont. — LD 51–17 — 334 Encina
[23]McKechnie, Frank — Palo Alto — LD 30+35 — 707 Bryant-p
McKee, Norman Campbell — Woodside — M.E. 64–5 — 118 Encina
McKenney, Arthur C., Jr. — San Francisco — Med. gr. — 1020 Union, SF-sf
A. B., Stanford, 1922.
McKenney, Philip Wash — Parlier — LD 90+14 — 344 Encina
Mackenzie, Andrew Nicholls — Pasadena — Geol. gr. — Theta Chi
A. B., Stanford, 1921, A. M., 1922.
McKenzie, Roger Bain — Santa Monica — Med. gr. — 2136 Pacific, SF-sf
A. B., California, 1919.
Mackay, Margaret Gilbert — Los Angeles — LD 83+59 — Gamma Phi Beta
McKibbin, Mabel Ferris — Portland, Ore. — LD 23·46+68 — 370 Roble
McKinnon, Douglas D. — Hollister — Econ. 8·172+92 — Alpha Delta Phi
A. B., Stanford, 1922.
[5]Mackson, Julius — San Francisco — Law 73·111+54 — 533 Encina
A. B., Stanford, 1922.
[124]MacLaren, John William — Portland, Ore. — Econ. 2·178+37 — Alexandria Hotel
McLean, William Ellis — Portland, Ore. — LD 55–4 — 829 Emerson-p
[3]McLellan, Roderick Irving — Burlingame — LD 12+10 — Clarendon Rd, B-b
McLeod, Gertrude Eloise — San Francisco — LD 46+40 — 260 Roble
[4]McMaster, William H. — Corvallis, Ore. — Educ. gr. — Sigma Alpha Epsilon
A. B., South Dakota, 1914.
McMenamin, James Thomas — Sebastopol — Law gr. — 321 Encina
A. B., Stanford, 1921.
McMurtry, Wanda Mabel — Lodi — Econ. 180+61 — Alpha Omicron Pi
A. B., Stanford, 1922.
McNair, Sarah — Great Falls, Mont. — Span. 97·46+19 — 168 Roble
[4]McNulty, Leighton, — Stanford Univ. — LD sp. — 31 Sequoia
[12]McPhee, Victor Charles — San Francisco — Pre-Med. 135·27+32 — 189 Bryant-p

McPherson, James Douglas — San Jose — Min. gr. — 500 Encina
A. B., Stanford, 1920, Engineer, 1922.
[5]MacQuarrie, Thomas Wm. — Palo Alto — Educ. gr. — 347 Hamilton
A. B., Stanford, 1922.
[12]McQueen, Donald Hugh — Modesto — LD 45+16 — 324 Encina
McQuoid, H. Meta — San Jose — Econ. 67·114+38 — AlphaOmicronPi
A. B., Stanford, 1922.
[12]MacRae, Richard Loomis — Los Angeles — LD 49+29 — Delta Upsilon
[5]McRoberts, James Melvin — Los Angeles — Econ. ‡ 53+15 — Delta Upsilon
[124]Macrorie, John J. — Whittier — LD 15–15 — Sigma Chi
[4]McRuer, John Torrance — Parkville, Mo. — Educ. gr. — 656 Channing-p
A. B., Park College, 1913.
McVey, Archie — Coronado — Engl. 97+49 — 29 Salvatierra
Maddock, William Eli — Butte, Mont. — Educ. gr. — 660 Waverley-p
A. B., Harvard, 1904; A. M., Stanford, 1922.
[1]Maes, Andrew Joseph — Vancouver, Wn. — LD 3–15 — 538 Cowper-p
Magarian, Gaspar H. — Fresno — Econ.-Law 141+101 — 56 Encina
[124]Mahoney, Daniel Anthony — San Francisco — Med. gr. — 545 Encina
A. B., Stanford, 1921.
Mahoney, Gilbert McA. — Portland, Ore. — LD 45–13 — 61 Sequoia
Maier, Herman Louis — Burlingame — Econ. 140+72 — Burlingame-b
[5]Maillot, Elmer Ellsworth — Alameda — Geol. 139+64 — Theta Xi
Main, Norman Francis T. — Hemet — Law gr. — 315 Union
A. B., Missouri, 1920.
[234]Maine, George Goodell — Stillwater, N.J — Chem. ‡ 34+41 — 630 Bryant-p
[5]Malaby, John Richard — Palo Alto — LD 21·89+52 — 551 Lytton-p
[12]Malarkey, James Herbert — Portland, Ore. — LD ‡ 29–13 — Chi Psi
Malinowsky, Joyce — Patterson — LD 82+19 — Mayfield-m
Mallory, Dora — Fresno — LD 97+36 — 381 Roble
[1]Malony, John Fuller — Stanford Univ. — Geol. 33–62 — Sigma Chi
[2]Manfredi, John Victor — Mt. View — LD 14–1 — Box 203, MV-mv
Manger, Richard R. — White Sul. Spgs., Mont. — LD 10·53+103 — Cowper Court-p
Mann, John — Kankakee, Ill. — LD 87–7 — Theta Delta Chi
[5]Mann, Russell Benjamin — Spencer, Iowa — Engl. 90·89+25 — 202 Union
Mannoccir, F. David, II — Hollywood — LD 86–3 — Beta Theta Pi
[4]Mansfeldt, John Harold — San Francisco — Pre. Med. ‡ — 35 Sequoia
Mapes, Gordon Walter — Palo Alto — Law gr. — 827 Lytton-p
A. B., Stanford, 1920, J. D., 1922.
Marble, John MacLaren — South Pasadena — LD 51+39 — Alpha Delta Phi
[23]Marcus, Samuel Waldo — Watsonville — LD 94–12 — 357 Encina
[12]Marino, Herbert Daniel — Stockton — Phyl.-Med. 94·113+38 — 222 Encina
Marks, George Albert — Los Angeles — LD 46+7 — Delta Chi
Marlow, Arthur Ashley — San Diego — LD 59+37 — Delta Tau Delta

Marquis, Cecil Isaac — Twin Falls, Idaho — LD 43·38|8 — 31 Encina
Marquis, Vernon M. — Twin Falls, Idaho — E.E. gr. — 346 Encina
A. B., Stanford, 1921, Engineer, 1922.
[1]Marriott, Gladys G. — Ventura — Engl. gr. — 264 Roble
A. B., Stanford, 1921.
Marsh, Chester — Stanford Univ. — Phyl.-Med 184+78 — 115 Encina
A. B., Stanford, 1922.
[12]Marshall, DeWitt Talmage — Modesto — Pol. S. 8+2 — 25 Sequoia
[12]Marshall, Donald Carlyon — Sunnyvale — LD 75+109 — 191 Saratoga, S-s
Marshall, Oscar C. — Stanford Univ. — Pre-Clin. 113·113+62 — 2 Cabrillo
A. B., Stanford, 1922.
Marston, Dorothy — San Rafael — Zool. gr. — Chi Omega
A. B., Stanford, 1921.
[5]Marston, Homer Eugene — San Rafael — Med. gr. — San Rafael-sr
A. B., Stanford, 1921.
[3]Martin, Darwin Riedpath — Buffalo, N.Y. — Econ. ‡ 14–2 — 327 Emerson
[1]Martin, Donald Mackenzie — Phoenix, Ariz. — LD 16–22 — 432 Encina
Martin, Henry A. — Watsonville — LD 46+25 — 209 Encina
Martin, Horace Edmund — Santa Monica — LD 53–6 — Chi Psi
Martin, Hugh Bradshaw — Stanford Univ. — Geol. 22·232+5 — Delta Upsilon
A. B., Stanford, 1922.
[5]Martin, Laurence Butler — Palo Alto — Law gr. — 629 Emerson-p
A. B., Stanford, 1922.
[1]Martin, Margaret C. — Los Angeles — LD — 211 Roble
[3]Martin, Vincent Lyman — Los Angeles — LD 15+1 — 49 Sequoia
[34]Marvin, Stanley — Vallejo — LD sp. 5·13+13 — 140 Encina
[1]Marx, Alberta — Palo Alto — Bact. gr. — 357 Kingsley-p
A. B., Stanford, 1921.
Marx, Guido Van Dusen — Palo Alto — M.E. gr. — 356 Lincoln-p
A. B., Stanford, 1921, Engineer, 1922.
[4]Mascord, Elizabeth F. — San Jose — Educ. gr. — 107 Roble
B. S., Columbia, 1907, A. M., 1908.
[1]Mason, Arthur John — Menlo Park — Min. gr. — c/o C.O.Devol, MP-mp
M. E., Cornell, 1910.
[12]Mason, Georgia Stierly — Watsonville — LD ‡ 25+10 — 209 Roble
[12]Mason, Herbert L. — Fond du Lac, Wis. — Bot. 38·148+107 — 415 Encina
A. B., Stanford, 1922.
Mason, Marshall Irwin — Bozeman, Mont. — LD 46+42 — 33 Encina-p
Mason, Paul — Palo Alto — Pol.S. gr. — 231 Cowper
A. B., Brigham Young University, 1920.
Masters, Alfred Richard — Portland, Ore. — Geol. 140+51 — 335 Encina
Mathews, Homer Hamilton — Pullman, Wn. — Law gr. — Sigma Alpha Epsilon
B. S., State College of Washington, 1918.
Mathews, Mary Hersey — Los Angeles — Hist. 13·177+212 — 212 Roble
A. B., Stanford, 1922.

Mathews, Samuel S. Los Angeles Pre-Clin. 57·153+23 322 Encina
A. B., Stanford, 1922.
[4]Mathews, William Calvin Madera Educ. 67·15+8 270 Kellogg-p
Matson, Theodore Malvin Mitchell, Neb. Chem. 140+44 426 Encina
Matsumura, Kiyoshi Japan Pre-Clin. ‡ 36–2 Japanese Club
[5]Maupin, James Lawrence Fresno Med. gr. 231 Union
A. B., California, 1921.
Maurer, Mildred L. Alameda Engl. gr. Kappa Alpha Theta
A. B., Stanford, 1921.
Mauzy, Marion V. Plattsmouth, Neb. Math. 41·143+7 Delta Gamma
A. B., Stanford, 1922.
[4]Maxwell, William Clarence San Mateo Engl. gr. 620 Costa Rica, SM-sm
A. B., Stanford, 1918.
May, J. Earle Los Angeles LD 70+1 33 Sequoia
Mayer, Leona Minnie San Francisco Chem. 68·85+103 316 Roble
[23]Mayfield, Charlotte Suisun LD ‡ 12–8 328 Roble
[12]Maynard, Barron Homer Berkeley LD 35–3 325 Encina
[1]Mead, Myron Wheelock Chicago, Ill. Econ. 182+72 Theta Chi
A. B., Stanford, 1922.
Meads, Norma Mae San Jose Educ. 67·65–14 Alpha Omicron Pi
[4]Mechem, Philip Chicago, Ill. Law 135·29+22 Alpha Tau Omega
[4]Meehan, William John Palo Alto LD sp. Hotel Alexandria-p
[12]Meek, Helen Elizabeth Los Angeles Econ. 58·55–8 Delta Gamma
Meeken, Duard O. Brighton, Colo. Econ. 89·93+101 Sigma Chi
A. B., Stanford, 1922.
[234]Meisling, Vaughn A. Copenhag'n, Den'k. Pre-Med 110·25+41 171 Emerson-p
Meissner, Ruth Louisa Lodi Math. 194+108 Alpha Omicron Pi
A. B., Stanford, 1922.
Melcher, Margaret Sybil San Francisco Med. gr. 2321 Sacramento, SF-sf
A. B., Smith College, 1916.
[1]Melick, Carlos Franklin San Antonio, Tex. LD 30–18 Sigma Chi
Melkonion, Leon Fresno Pre-Clin. 94·67+25 316 Union
[23]Melrose, Anna San Mateo LD ‡ 30+1 334 Roble
Mendenhall, Samuel H. Long Beach LD 89+17 418 Encina
Mendonca, Marcello P. Sao Paulo, Brazil M.E. 60·129+36 Theta Xi
A. B., Stanford, 1922.
[12]Menees, George Earl Phoenix, Ariz. LD 39–35 400 Encina
[12]Mercer, Andrew St. Joseph, Mo. Chem. 181+179 Union
A. B., Stanford, 1922.
Merner, Paul Marcus P. Los Angeles Chem. gr. 1344 Tasso
A. B., Stanford, 1921, Engineer, 1922.
Merrill, Anna Frances Salt Lake City, U. LD 44·43+31 364 Roble
Merrill, Aurelia Marie Redwood City Math. 138+151 216 Roble
Merrill, Charles White Pasadena Geol. 204+83 57 Encina
A. B., Stanford, 1922.

[3]Merrill, Ernest Nathaniel	Redwood City	LD 63+29	Theta Xi
[5]Merrill, Guy Roger	Auburn, Maine	LD sp. 26+21	625 Emerson-p
Merrill, Maud Amanda	Owatonna, Minn.	Educ. gr.	30 Alvarado
A. B., Oberlin, 1911; A. M., Stanford, 1920.			
Merrill, Ruth Frances	Menlo Park	Engl.-Jn.170+158	MenloPark-mp
Merrill, Wayne Locklin	Indianapolis, Ind.	Chem. gr.	Phi Delta Theta
A. B., Franklin College, 1917.			
[4]Merriman, Curtis	Cheney, Wn.	Educ. gr.	1001 Ramona
A. B., Indiana, 1902; A. M., Columbia, 1916.			
Merritt, Russell Staples	Santa Rosa	LD 45·42+5	89 Sequoia
Mertz, Laurence Lewis	Evanston, Ill.	LD 46·57+9	Beta Theta Pi
Mertz, Vieth Theodore	Evanston, Ill.	Econ. 43·88+114	Beta Theta Pi
Meskimons, Sara Hervey	Merced	LD 49+76	111 Roble
[1]Metzgar, James Hustead	Santa Ana	LD ‡7–15	
[14]Metzler, David Russell	Los Gatos	Sch. Ed. gr.	Los Gatos-lg
A. B., Stanford, 1919.			
[1]Metzler, Victor Sowles	Coachella	LD ‡6–16	539 Homer
Meyer, Charles Lorentz	Sebastopol	M E. 147+183	424 Encina
Meyer, Dorothy Farrar	Oakdale	LD 43–10	180 Roble
Meyer, Norton	San Francisco	LD 39–3	129 Encina
[12]Meyer, Philip Naramore	Richmond	LD 39–9	Delta Tau Delta
[4]Meyers, Eva Augusta	LaGrange, Tex.	LD	206 Roble
Meyers, Robert Koehler	Tulare	Law gr.	19 Encina
A. B., Stanford, 1920, J. D., 1922.			
[12]Meza-Ayau, R., Jr.	Santa Ana, Salv., C.A.	LD 24–24	611 Bryant
[1]Meza-Ayau, Arturo	Santa Ana, Salv., C.A.	LD 51–21	141 Encina
[1]Michael, William Manford	Champaign, Ill.	Law gr.	Alpha Sigma Phi
A. B., Illinois, 1920.			
Middleton, Joel Dugger	Phonix, Ariz.	LD 37–8	Kappa Sigma
Midgley, Charles Wm., Jr.	Oakland	Econ. 127+37	Sigma Nu
[1]Millea, Herbert Newell	Los Angeles	LD 18–24	49 Sequoia
[5]Miller, Arthur Mahen	Buhl, Idaho	LD 33·45+25	1527 Waverley-p
[12]Miller, Charles Emerson	Portland, Ore.	M.E. 186+191	60 Encina
A. B., Stanford, 1922.			
[23]Miller, Donald Howard	San Leandro	LD 9–20	Alpha Kappa Lambda
[12]Miller, Edward W., Jr.	Cottage Grove, Ore.	LD 11+2	535 Byron-p
Miller, Elgie Elspeth	San Francisco	Econ. 180+13	Pi Beta Phi
A. B., Stanford, 1922.			
Miller, Esther Ruth	Los Angeles	Hist. gr.	Madroño
A. B., Pomona, 1921; A. M., Stanford, 1922.			
[5]Miller, Eugene Elliott	Eagle Rock City	C.E. 70·66+43	334 Union
Miller, Frederick Harding	So. Pasadena	M.E. 128+85	364 Encina
[1]Miller, G. Lucille	Los Angeles	Zool. 185+27	Sigma Kappa
A. B., Stanford, 1922.			

Miller, Harold Anderson — Aberdeen,Wn. — LD 34–9 — Kappa Sigma
[12]Miller, Harold Jean — Portland, Ore. — Pol.S.-Law 45·112–24 — 215 Encina
[1]Miller, Holmes Clevenger — Palo Alto — M.E. 93+68 — 1018 Forest Court-p
[5]Miller, Kingsley Roy — Beloit, Kans. — Chem. 96·24+12 — 123 Emerson-p
[5]Miller, Knox — Fort Worth, Tex. — LD 23·67+47 — 201 Encina
[5]Miller, Leland Wood — Los Angeles — Econ. 83·37+16 — B.550A,Embar'o-p
[234]Miller, Lowell Morrison — Palo Alto — Econ. 71+23 — 240 Embarcadero-p
[12]Miller, Ralph Selleck, Jr. — Santa Cruz — LD 67–14 — Phi Delta Theta
[1]Miller, Russyl Ellwood — St.Anthony,Ida. — Chem. 40·152+1 — Theta Xi
A. B., Stanford, 1922.
[13]Miller, Sarah Kathryn — Los Angeles — Hist. 144+66 — Sigma Kappa
Miller, Wallace Jenks — Los Angeles — Zool. 100·86+39 — Delta Upsilon
A. B., Stanford, 1922.
Miller, Walter George — San Jose — M.E. 14·139+97 — 250 Encina
[34]Miller, Wm. Elmer — Cedar Rapids, Ia. — LD 37·14+6 — Encina
Miller, William Stanley — San Jose — C E. 63+17 — 858 S. 8th, SJ-sj
Milliken, Sheldon Spencer — Pasadena — LD 47+42 — 107 Encina
Millikin, Paul Hynes — Los Angeles — Geol. 12·177+63 — 307 Union
Mills, Russell Holbrook — Douglas, Ariz. — Chem. 10·173+0 — 223 Encina
A. B., Stanford, 1922.
Millspaugh, H. Sloane — Spokane, Wn. — Law 90·44+27 — 429 Encina
Minard, Claude Russell — Fresno — Law 133+21 — 306 Encina
[1]Miner, Elliott Steele — Cupertino — Econ. 28·156+1 — 449 Encina
A. B., Stanford, 1922.
[23]Miner, Nagel Thompson — Santa Cruz — LD 33+36 — 475 Tennyson-p
Minner, Victor Julian — Carbondale, Ill. — LD 45+80 — 1106 Ramona-p
[5]Minshall, Francis Edward — San Jose — Geol. 159+7 — 450 S. 2d, SJ-sj
[4]Minsky, Harold Bernard — Los Angeles — LD — 205 Union
Minsky, Louis B. — Hollywood — Econ.-Law 46·90+44 — 562 Encina
[5]Mitchell, Emery Ferguson — Belvedere — Law 82·147+52 — Phi Kappa Psi
[4]Mitchell, Evelyn Dent — Santa Rosa — LD — Madroño
Mitchell, Homer I. — Los Angeles — Law 202+187 — Theta Delta Chi
A. B., Stanford, 1922.
[4]Mitchell, Howard Thomas — Palo Alto — Law gr. — 329 Hawthorne-p
A. B., Ohio State University, 1922.
[12]Mitchell, Marie Lucile — Hollywood — Engl. gr. — Alpha Phi
A. B., University of Southern California, 1920.
[1]Miyamoto, Kazuo — Kakalau, Hawaii — Phyl.-Med. 12·153+107 — Jap. Club
Mizota, George S. — Fukuoka, Japan — LD 80+123 — Japanese Club
[1]Mode, Morris John — Dinuba — LD 45+28 — 108 Encina
Moe, Orion Garman — Los Angeles — LD 80+31 — 83 Sequoia
[234]Moeller, Ernest Henry — El Paso, Tex — Econ. sp 40·38–6 — Sigma Nu
[12]Mohr, Ethel — San Francisco — LD 43+28 — Kappa Kappa Gamma

[5]Mohr, Everett Kingsley — San Francisco — Educ. 53·72+15 — 144 Byron-p
Moir, Wallace — Los Angeles — Econ. 94·87+32 — AlphaTauOmega
A. B., Stanford, 1922.
[1]Moklofsky, Emil James — San Mateo — LD 4–17 — 320 Mt. Diablo, SM-sm
[234]Molseed, Robert Thomas — Petaluma — LD sp. 28+47 — Hotel Alexandria-p
[4]Momyer, George Robert — Brawley — Educ. — 223 Cowper
Monaco, Rodolfo Eugene — Los Angeles — Pre-Clin. 135·45+14 — 314 Union
A. B., Stanford, 1922.
[23]Monahan, John J. — San Francisco — Chem. sp. 14–20 — 3191 16th, SF-sf
Monroe, Donald Brush — SaltLakeCity,U. — Econ. 106–7 — 315 Encina
Monroe, Marshall William — Chula Vista — Fr. 90·39+23 — 35 Sequoia
[12]Monroe, Merton Keith — Monrovia — Law 14·169+8 — Alpha Delta Phi
A. B., Stanford, 1922.
Monroe, Yoves Montaire — Long Beach — LD 74–27 — 1040 Emerson-p
Montague, Richard Aga — Fullerton — Chem. gr. — 506 Encina
A. B., Stanford, 1921, Engineer, 1922.
[12]Montgomery, Donnell G. — Eagle Rock — Pol.S.-Law 58·70+19 — 59 Encina
[4]Montgomery, Robert Bruce — San Jose — Educ. gr. — 1006 McClellan, SJ-sj
A. B., Stanford, 1920.
[23]Moody,Charles LeRoy — Columbus,Kans. — Phys. 135·30+25 — Stanford Park
Moody, Irwin Walter — San Jose — Geol. 112+85 — 305 S. 16th, SJ-sj
[4]Moody, Ruth Madeline — Brainerd,Minn. — Engl. gr. — Roble
A. B., Minnesota, 1918.
[1]Mooney, Sheldon James — Seattle, Wn. — Econ. sp. 29–18 — Delta Chi
Moore, Arthur, Jr. — Dallas, Tex. — LD 89+21 — Phi Kappa Sigma
Moore, Cathrine America — Palo Alto — Engl. 135·45+76 — 329 Hawthorne-p
A. B., Stanford, 1922.
[5]Moore, Claude Wilkins — Proberta — Hist. 43·114+83 — 555 Encina
[5]Moore, Edwin Cecil — Palo Alto — C.E. ‡ 33+4 — 334 Union
Moore, Josephine — Chicago, Ill. — Lat. gr. — Kingscote
A. B., Chicago, 1919; A. M., Stanford, 1922.
Moore, Robert Marion — San Jose — LD 49+39 — 57 Magnolia, SJ-sj
§Moore, Ruby Strachan — Jerome, Idaho — Econ. 109+13 — Alpha Sigma Phi
[1]Moore,Walter Edwin — BattleCreek,Mich. — LD 12–14 — 228 Encina
Mooty, Hattie Elizabeth — Stockton — LD 36–9 — 117 Roble
[1]Morero, Joseph Ernest — Stanford Univ. — Min. gr. — 52 Encina
A. B., Stanford, 1921.
[4]Morf, Mary Jane — San Francisco — LD sp. — Roble
[1]Morgan, Arthur L. — Cañon City, Colo. — E.E. gr. — 29 Salvatierra
A. B., Stanford, 1917.
Morris, Cecil Martin — Billings, Mont. — LD 83–4 — Alpha Sigma Phi
[1]Morris, George Wm. E. — Gallup, N.Mex. — Econ. 73–24 — 426 Encina

§ Deceased May 18, 1922.

Morris, Harold Nathan — Oxnard — LD 65+15 — 43 Encina
Morris, John Knox, Jr. — San Francisco — Med. gr. — 3151 California, SF-sf
A. B., Stanford, 1921.
[3]Morris, Kathryn — San Francisco — Fr. 90+12 — Kappa Kappa Gamma
Morris, Ruth Lilian — San Francisco — Psych. 33·141+64 — 303 Roble
Morris, Ruth Mabel — Oxnard — Lat. 10·171+164 — 306 Roble
A. B., Stanford, 1922.
Morrison, Deming W. — Wheatland, Wyo. — LD 48+39 — 27 Sequoia
[5]Morrison, Marcus Fae — Ferndale — Law ‡27–21 — 835 Lytton-p
[5]Morrison, Roland Jackson — Santa Clara — Econ. 122+17 — 1196 Main, SC-sc
Morrow, Charles Henry — Ryegate, Mont. — Econ. 135·45+32 — 353 Melville-p
A. B., Stanford, 1922.
Mors, George L. — Los Gatos — C.E. 119+51 — 449 Encina
Morshead, MerrillConstant — SanFrancisco — Econ. 100·82+65 — Kappa Alpha
A. B., Stanford, 1922.
[5]Mortimer, Wendell Reed — Palo Alto — Psych. 135+77 — 344 Tennyson-p
[1]Morton, Robert Hiram — San Francisco — LD 0–17 — 202 Encina
Mosher, Albert — Rawlins, Wyo. — Law 152+120 — Sig. Alpha Epsilon
[4]Mosher, Harold — Fowler — Ed.P.E. 67·37+40 — 170 Waverley-p
[4]Mosher, John A. — Pomona — LD ‡ — 211 Union
[34]Mosher, Raymond Mylar — Santa Barbara — Educ. gr.
A. B., Stanford, 1919.
[1]Moultrie, Elizabeth L. — Los Angeles — Engl. 59·122+57 — Kap. Alpha Theta
A. B., Stanford, 1922.
[5]Moyle, Edward — Palo Alto — LD sp. 39+5 — 219 Channing-p
Muir, James Creighton — Wilbur, Wn. — LD 11·49+91 — Phi Gamma Delta
Mulchay, Roland Bernard — Portland, Ore. — LD 46+88 — Theta Xi
[12]Mulford, Oscar Wayne — Los Angeles — LD 59+7 — 61 Sequoia
Muller, Dorothy — Oxnard — LD 45+0 — 354 Roble
Muller, Edward Pierre — San Francisco — LD 56+8 — 123 Encina
[12]Mullgardt, Alex Steffens — Honolulu, T.H. — LD ‡ 28–15 — Phi Delta Theta
Mulryan, Henry — Beresford — Geol. 123+115 — Beresford-b
[4]Mulvane, Virgiline B. — San Bernardino — LD sp. — Roble
Mumford, Patrick Foster — Palo Alto — LD 106+92 — 1135 Bryant-p
Munroe, Frank Gordon — Los Angeles — LD 32–27 — 50 Sequoia
Murata, Thomas Tomio — San Francisco — LD 63+86 — Japanese Club
Murdoch, Christine — Klamath Falls, Ore. — Law 135+114 — 352 Roble
[5]Murphey, Newton Samuel — Burlingame — Law 135·39–6 — Burlingame
[1]Murphy, Cornelius — Los Angeles — LD 3–12 — 730 Bryant-p
[4]Murphy, Ellen — Dublin, Ireland — LD sp. — Roble
[5]Murphy, Frank L. — Palo Alto — Law gr. — 329 Encina
Ph. B., Ottawa, 1915; A. B., St. Francis Xavier, 1916.
[12]Murphy, John Andrew — Salinas — LD 11–24 — 38 Lasuen

[3]Murphy, Paul John	Salida	LD 14+3	111 Encina
[23]Murphy, Ramund Robert	SanFrancisco	LD 15–1	Sigma Nu
Murphy, Raymond Covert	Salida	Law 60·121+19	113 Encina
A. B., Stanford, 1922.			
[12]Murphy, Russell Nichols	Burlingame	LD 44+23	Sigma Chi
Murphy, William H.	Palo Alto	Med. gr.	551 Addison-p
A. B., Stanford, 1920.			
[4]Murray, Gertrude	San Francisco	LD ‡	Roble
[4]Murray, Minnie	Redlands	LD sp.	262 Roble
[23]Murray, Oscar Raymond	Los Gatos	Econ sp.27+13	264Saratoga,LG-lg
[5]Murray, Paul Chaney	Lodi	Geol. 21·135+51	Sigma Nu
Muscio, Neva Evelyn	Burlingame	Econ. 99·73+32	Alpha Phi
[13]Musser, Edgar Hale	Los Angeles	Geol. gr.	900 Waverley-p
A. B., Stanford, 1920.			
[1]Musser, Luzon Rizal	San Francisco	LD 11–10	Delta Tau Delta
Muzzey, Isabelle G.	Pasadena	LD 18·76+70	162 Roble
Myers, Burton Allen	San Francisco	Med. gr.	S. F. Hosp.,SF-sf
A. B., Kansas, 1919.			
Myers, Edwin Forgan	Portland, Ore.	C.E. 138+182	559 Encina
Myers,LyttletonEmery,Jr.	HermosaBe'ch	LD 32–9	25.Sequoia
Myers, Robert Pearce	Long Beach	LD 43+35	Phi Kappa Psi
[3]Nakahara, Yuki Mabel	San Francisco	LD 45·15+8	211 Roble
[5]Nanninga, Simon P	Palo Alto	Educ. gr.	626 Gilman-p
B. S., Kansas State Normal, 1916; A. M., Stanford, 1922.			
[13]Nara, Shizuma	Oita, Japan	Hist. gr.	R 2, Bx 377, LA-la
A. B., Waseda University, 1910; A. M., Stanford, 1922.			
Nash, Alfred Warren	Oakland	Geol. 127+68	561 Encina
[1]Nathanson, Norman Jesse	San Jose	Econ. gr.	429 Encina
A. B., Stanford, 1921.			
Nave, Charles Olney	Kissimmee, Fla.	LD 104+38	845 Waverley-p
[23]Nay, Dorothy Louise	Pasadena	Ed.G.A. 82·70+21	Kap. Alp. Theta
[4]Naylor, Blanche	San Diego	Educ. ‡ 11+8	Roble
[4]Naylor, Ella Grace	Oakland	Educ.	238 Roble
[5]Neal, Finley Farrand	Topeka, Kans.	Phys. gr.	Box 602, MP-mp
B. S., Washburn College, 1919.			
[12]Neer, Jacie	Portland, Ore.	Econ. 181+105	244 Encina
A. B., Stanford, 1922.			
Neer, Phil F.	Portland, Ore.	Econ.-Law 142+6	AlphaDeltaPhi
Nef, Kenneth Dunlap	Point Loma	M.E. 77·131+8	Sigma Chi
[12]Neill, Clayton B.	Denair	C.E. 45·121+73	Alpha Tau Omega
Neill, William C., Jr.	Santa Monica	LD 46+17	Phi Kappa Sigma
[23]Nelson, Albert	Eureka	Pol.S. 68+83	207 Encina
[1]Nelson, Armand Gilbert	Spokane, Wn.	LD 19–39	53 Sequoia

Nelson, Frithjof William A. B., Stanford, 1922.	Palo Alto	Geol. 16-178+41	750 Channing-p
Nelson, Helen Elizabeth	Redlands	Hist. 100-46+40	105 Roble
Nelson, Oscar Mathias F. A. B., Stanford, 1922.	San Jose	Chem. 192+244	31 Brooklyn,SJ-sj
Nelson, Roy Frank A. B., Knox College, 1919.	San Francisco	Med. gr.	2321 Sacramento, SF-sf
[1]Nelson, Walter Jerome A. B., Stanford, 1922.	Spokane, Wn.	Chem. gr.	234 Encina
Nelson, William Kenneth	Santa Ana	LD 45-46+72	402 Encina-p
[13]Nemetz, Mildred L.	Chicago, Ill.	LD 70+82	365 Roble
Nesbit, Reed Miller A. B., Stanford, 1921.	Berkeley	Med. gr.	2543 Dwight Way,B-b
Nethercut, Ruth Allen A.B., Stanford, 1919.	LakeGeneva,Wis.	Med. gr.	3014 Clay, SF-sf
Neuman, Adolph	Pasco, Wn.	LD 95+18	326 Encina
Neuman, Arthur	Turlock	Pol.S.-Jn.90-44+48	WWS,MP-mp
Newbauer, Jerome Paul	San Francisco	LD 47+36	27 Encina
Newill, Philip	Portland, Ore.	LD 82+75	428 Encina
Newlin, Carl Allen	Hutsonville, Ill.	Econ. 46-102+30	Phi Kappa Psi
[5]Newlin, Ruth Anne	Fresno	LD 90+102	112 Roble
[4]Newman, Miles Meier	Palo Alto	LD sp.	465 Hawthorne-p
Newman, Robert Wilson	Ogden, Utah	LD 25–11	405 Kipling-p
Newman, William, Jr. A. B., Stanford, 1921.	Fresno	Chem. gr.	232 Encina
[23]Newmark, Lucile	Los Angeles	LD 23+11	329 Roble
[5]Newnan, Gladys	Mountain View	LD 93+140	Mountain View-mv
Newsom, John Branner A. B., Stanford, 1922.	Palo Alto	Min. gr.	1129 Cowper-p
[5]Newton, Ford Wilson	Taft	Geol. 168+111	407 Encina
[12]Newton, Glenn DeWitt	Dinuba	LD 71+24	108 Encina
[234]Nicholas, Howard L.	Palo Alto	Law 135-23+12	625 Emerson-p
Nicholas, Warren W.	Palo Alto	Chem. 49-99+139	458 Channing-p
Nichols, Howard Bowman	San Jose	C.E. 77-51+70	345 S. 6th, SJ-sj
Nicholson, Harold Buxton	Long Beach	Econ. 51-96+83	Beta Theta Pi
[34]Nickell, Richard Wm. A. B., California, 1921.	San Diego	Law gr.	333 Union
[2]Nickle, Harold Albert	Glendora	Geol. 31+18	Alpha Tau Omega
[12]Nickle, Neil Clark	Glendora	Geol. ‡ 30+19	Alpha Tau Omega
Niebel, Herbert Lee A. B., Stanford, 1914.	San Francisco	Med. gr.	2749 Union, SF-sf
[5]Niebergall, Herbert A.	Vancouver, B.C.	Phyl. 129+44	15 Encina
[4]Nielson, Adonis Haight	Oakley, Ida.	Law 91-33+19	27 Sequoia
[23]Niemann, Christian W.	San Francisco	LD 31+17	349 Encina

Noble, Burton Avery	San Francisco	LD 57+34	351 Encina
Noble, Cornelius Chester	Madera	LD 30·46+33	228 Encina-p
Noland, Harry Leslie	Saguache, Colo.	LD 42+17	325 Encina
[1]Nolds, Ida Gertrude A. B., Denver, 1912.	Denver, Colo.	Educ. gr.	Madroño
Norberg, Raymond Wm.	Kingsburg	LD 47+38	423 Encina
[5]Norris, Paul Edison	Fullerton, Neb.	LD 66·40+27	460 Homer-p
North, Agnes Martha	South Pasadena	Greek 90·45+31	224 Roble
Norwood, J. Lane	Los Angeles	Econ. 135·46+20	843 Cowper-p
[12]Nourse, Robert Sylvester	San Francisco	LD 47–23	36 Sequoia
Nowell, George Madison	Tulare	Law 164+150	529 Encina
Nowell, Nelson T.	Honolulu, T.H.	Econ. 119+38	Theta Delta Chi
Noyes, Elizabeth	Oakland	Fr. 47·90+140	Delta Delta Delta
Oberg, Henry Leland	Palo Alto	Econ. 147+231	637 Gilman
[2]24O'Connor, Roger Aloysius	San Mateo	LD sp. 19+1	636 Hurl'g'm,SM-sm
[1]Off, Howard Jerome	Los Angeles	LD 15–22	207 Hawthorne
[12]4Off, Theodore Roosevelt	Los Angeles	LD 32–7	Delta Kappa Epsilon
Ogata, Yaichiro A. B., Stanford, 1922.	Kagoshima, Japan	Econ. 3·177+31	Japanese Club
O'Hara, Francis Paul	San Diego	Pre-Med.46·58+33	PhiDeltaTheta
O'Hara, Joseph Jerome	San Diego	LD ‡ 40–15	Phi Delta Theta
[1]Ohasapian, Aram Arthur	Clovis	LD 62+2	459 Hamilton-p
Okami, Shigeichi A. B., Stanford, 1922.	East San Pedro	Anat. gr.	Japanese Club
O'Keefe, M. Ethel A. B., Stanford, 1921.	Menlo Park	Span. gr.	Menlo Park-mp
[5]O'Laughlin, John Richard	Madison, Wis.	Hist. 112·32+5	Union
Oliva, David Melvin	San Francisco	LD 58+77	410 Encina
[12]Olmsted, William Pitkin	Los Angeles	Geol. 118+16	Delta Upsilon
[5]O'Loughlin, James G.	Worcester, Mass.	M.E. sp 8–14	3562 17th, SF-sf
Olsen, Daniel Minter	Palo Alto	LD 48+34	321 Fulton-p
Olsen, Evelyn Petrene A. B., Stanford, 1922.	Mountain View	Ed.G.A. 181+136	Xazmin House
[12]Olsen, Glen Fader	Hollywood	LD 19–14	210 Encina
Olson, Ruth Arlene A. B., Stanford, 1921; A. M., 1922.	Brandon, Colo.	Hist. gr.	210 Roble
O'Neill, Francis Ignatius	San Francisco	LD 65·44+20	402 Encina
[2]Ong, Ralph Osborne	Pasadena	LD 15–8	Phi Kappa Psi
[4]Opgenorth, Olive C. A. B., Wisconsin, 1916.	Tacoma, Wn.	Hist. gr.	147 Emerson
[1]O'Reilly, John J.	San Francisco	Law ‡ 4–13	22 Encina
[1]Ormsby, Walter Arwin	Stanford Univ.	Law 174+22	429 Encina
Orr, Leslie Burnette	Gilroy	LD 43+2	251 Encina

Orr, Paul Wright	Modesto	LD 50+0	110 Encina
[34]Osburn, Gertrude M. S.	Burlingame	Educ. gr.	1457 Balboa, B-b
B. A., Washington, 1908.			
[234]Osburn, William Quincy	Burlingame	Educ. gr.	1457 Balboa, B-b
B. A., Washington, 1908.			
Osuna, Anita Maria	Albuquerque, N.M.	Span. gr.	265 Roble
B. A., State University of New Mexico, 1921.			
Overacker, Horace E.	St. Helena	M.E. 181+101	18 Encina
A. B., Stanford, 1922.			
Overfelt, Dorothy Louise	San Jose	LD 86+60	Delta Delta Delta
Overfelt, Harold	San Jose	LD 54+89	24 Sequoia
[4]Overholtzer, Katherine M.	Claremont	Econ. ‡ 33+13	232 Roble
[1]Oviatt, Tod	Santa Barbara	LD 4–11	Mariposa Hotel
[1]Owen, William Wallace	Palo Alto	Econ. 54+7	151 Addison-p
[12]Ownby, Jordan Cravens	Dallas, Tex.	LD ‡ 9+0	Kappa Alpha
[4]Paden, William Guy	Alameda	Educ.	Stanford Union
[3]Paderewski, Samuel	Harbin, China	LD 5–3	731 Hamilton-p
Page, Benjamin H.	San Mateo	Med. gr.	225 Minnie, SM-sm
A. B., Stanford, 1922.			
[1]Page, Katharine	Chocorua, N. H.	Fr. gr.	252 Kingsley-p
A. B., Vassar, 1918; A. M., Stanford, 1922.			
Paine, Willard D.	Saratoga Spgs., N.Y.	LD 36–2	323 Encina
Pallette, Edward Choate	Los Angeles	LD 33+1	Beta Theta Pi
[12]Palm, Carl David	Kingsburg	Chem. 54·141+28	520 Encina
A. B., Stanford, 1922.			
[13]Palmer, Burton White	San Jose	LD 80+45	435 Encina
Palmer, Chester Bonney	Mountain View	C.E. 140+163	425 Hope, MV-mv
[12]Palmer, Donovan Elliott	Upland	Econ. 53·128+123	AlphaSigmaPhi
A. B., Stanford, 1922.			
[4]Palmer, Maud	Johannesburg, S. Africa	LD sp.	Roble
[4]Palmer, Myrtie Lillian	Lindsay	Educ.	Madroño
Papazian, George Mark	Fresno	Hist. 82·95+20	22 Encina
A. B., Stanford, 1922.			
[12]Parent, Harold Lewis	Mill Valley	Geol. 0–23	128 Encina
Paris, Claude Henry	San Francisco	LD 38–4	416 Encina
[1]Parish, John Thomas	Twin Falls, Ida.	Law 52·56–10	323 Encina
Park, Harold Raymond	Spokane, Wn.	LD 86+92	530 Emerson-p
Parker, Elizabeth	Baker, Ore.	LD 48+37	337 Roble
[23]Parker, Melvin Francis	Oakland	Econ. 123–33	Sigma Chi
[23]Parker, Richard Allyn	Palo Alto	LD 23–11	115 Alma-p
[1]Parker, William Lenard	Oakland	LD ‡ 4–11	827 Middlefield-p
[23]Parkhurst, Angie Helen	San Mateo	LD ‡ 28–4	336 Roble
[1]Parkinson, John Francis, Jr.	Palo Alto	LD 23–29	616 Cowper-p

[1]Parks, Benjamin Stanley	Los Angeles	Law gr.	Sigma Alpha Epsilon
A. B., Stanford, 1920; J. D., 1921.			
Parks, Charles Helmer	Cody, Wyo.	LD 57+12	Phi Kappa Psi
Parks, Ernest Kempe	Edgewater, Colo.	Geol. 55·46+52	151 Churchill-p
[4]Parks, Grace Amelia	Tacoma, Wn.	Ed.P.E. gr.	176 Bryant-p
A. B., Washington, 1917.			
Parlier, Lillian	Fresno	LD 89+31	846 Bryant-p
[12]Parsons, Eleanor	Stanford Univ.	LD 60+21	Kingscote
[3]Parsons, William Henry	Santa Cruz	LD 11–4	Encina
Pasmore, Edith Edwina	Berkeley	Phyl. gr.	Madroño
A. B., California, 1920; A. M., Stanford, 1922.			
Pasquale, Yvonne Alice	San Francisco	LD 91+104	Kappa Kappa Gamma
[1]Patacsil, A. G.	Munoz, Nueva Ecija, P.I.	LD 29+5	711 Cowper-p
[5]Patacsil, Gregorio Caccam	StanfordUniv.	LD 91+6	14 Alvarado
[23]Patek, Sadie Dernham	San Francisco	Pre-Med. gr.	Kingscote
A. B., Stanford, 1911.			
[12]Paterson, Douglas Dana	San Jose	LD 35–1	135 S. 13th, SJ-sj
[3]Patrick, Galdys Valdio	Palo Alto	LD 20–12	305 Lytton-p
[12]Patrick, John Clarence	Palo Alto	Ent. gr.	305 Lytton-p
A. B., Stanford, 1922.			
Patten, Clement Millard	Los Angeles	Econ. 127–11	Phi Gamma Delta
Patterson, Allen A.	Santa Maria	Chem. 101·100+51	409 Encina
A. B., Stanford, 1922.			
Patterson, Edwin Alexander	Oakland	Phyl. 137+43	Phi Kappa Psi
[5]Patterson, Geo. Washington	Houlka, Miss.	Pol. S. gr.	445 Hamilton-p
A. B., Mississippi, 1920.			
[1]Patterson, Henry Clay	Los Angeles	LD	141 Encina
Patterson, Homer William	Richmond	Law 9·132+129	42 Encina
Patterson, William Weber	Portland, Ore.	Econ. 47·92+27	Sigma Chi
Patton, Alfred Talbot	Berkeley	LD 95+88	249 Encina
Patton, Robert Taylor	Spokane, Wn.	Law 40·106+78	Alpha Delta Phi
[23]Paulsen, Catherine Margaret	Palo Alto	LD 45+27	602 Waverley-p
Paulsen, Helen Carolyn	Palo Alto	Ed.G.A. 134+55	602 Waverley-p
Payne, George Harold	Berkeley	M E. 181+113	325 Hamilton-p
A. B., Stanford, 1922.			
Payne, Helen Elizabeth	Santa Rosa	Hist. 182+105	251 Roble
A. B., Stanford, 1922.			
[4]Payne, Ira Dawson	Tempe, Ariz.	Educ. gr.	1201 Palo Alto-m
A. B., Stanford, 1911.			
[3]Peak, Charles M.	Salt Lake City, U.	Econ. ‡ 6–8	305 Union
[23]Pearce, Cecil Edward	Sites	C.E. 180+112	563 Encina
A. B., Stanford, 1922.			
Pearce, George Call	Redwood City	LD 91+96	700 Jefferson, RC-rc
Pearce, Mercedes	Redwood City	LD 60+15	700 Jefferson, RC-rc

Pearson, Russel Alderson	Portland, Ore.	Chem. 77·110+116	543 Encina
[34]Pease, Clarence Howard	Stockton	Hist. 15·65+13	17 Encina
Peavy, Claude Edward	Orcutt	M.E. 129+22	335 Encina
[4]Peavy, George Darwin	Corvallis, Ore.	LD sp.	Sigma Chi
[3]Peck, Alice Hawley	Los Angeles	LD 12–8	217 Roble
Peery, David Harold	Porterville	LD 46+1	418 Ramona
[23]Peirce, Carolyn	Palo Alto	LD 31+47	281 Embarcadero-p
Peirce, Elizabeth	Palo Alto	LD 103+110	281 Embarcadero-p
[4]Peirce, Norma	Daly City	LD	335 Roble
[134]Penepacker, Frank M.	Palo Alto	LD 28+12	308 Encina
[12]Penfield, Douglas Lathrope	Coalinga	Pre-Med. ‡ 24–8	636 Gilman-p
[12]Pennington, Thomas Edmund	Belmont	Chem. 42·104+36	Bx33,Belmont-b
[5]Penwell, Lewis Fred	Los Angeles	Econ. 129+39	34 Sequoia
[23]Percy, Faye Willard	Peoria, Ill.	LD sp. 19–9	251 Emerson-p
[4]Perkins, Glen O.	Tucson, Ariz.	Educ. gr.	Kingscote
B. S., Kansas State Normal School, 1917.			
Pernau, Vera Lillian	San Francisco	Fr. 180+90	Alpha Phi
A. B., Stanford, 1922.			
[13]Perrin, Minard D.	Coronado Beach	Econ. 84–37	359 Emerson
Perrine, Kenneth Dickey	Shaver	LD 30–18	210 Encina
[1]Perrott, Thelo Albert	Palo Alto	LD 71+4	Box 578-p
Pershing, Richard Scull	Oakland	Econ. 26·154+68	Chi Psi
A. B., Stanford, 1922.			
[12]Peter, Leslie Harber, Jr.	Oakland	LD 49+52	5 Cabrillo
Peters, Gertrude Marian	Los Angeles	Span. gr.	208 Roble
A. B., Stanford, 1920; A. M., 1922.			
[23]Petersen, Carol Byer	Oildale	LD 28+11	356 Roble
Petersen, Jennie Marie	Richfield, Utah.	LD 46+35	115 Roble
[1]Petersen, Sigwald Emanuel	Oakland	LD 8–5	319 Middlefield-p
Peterson, Algot Julius	Kingsburg	Econ.-Law 135+190	248 Encina
[4]Peterson, Arthur G.	San Diego	Educ. gr.	Menlo Heights
A. B., College of the Pacific, 1912.			
Peterson, Hilbert W.	Omaha, Neb.	Econ. 93·84+44	Alpha Sigma Phi
A. B., Stanford, 1922.			
Petray, Marian Shirley	Oakland	Engl. 68·72+16	Sigma Kappa
Petrini, James	Bakersfield	Law gr.	539 Encina
A. B., Stanford, 1921; LL. B., 1922.			
[12]Petta, Joseph Nickolis	Los Angeles	LD 40+4	112 Encina
[34]Pettibone, Gilbert Wm.	Vallejo	LD sp. 5·13+4	228 Encina
[4]Pfander, Homer Garrison	Clarinda, Ia.	Engl.	10 Salvatierra
[4]Pfenninger, Lillian	Oak Grove, Ore.	LD sp.	180 Roble
[1]Phelps, Davenport Rees	Los Angeles	Econ. ‡ 95–6	71 Sequoia
Phelps, Eunice Earlene	Phoenix, Ariz.	LD 68+18	Alpha Omicron Pi

Phelps, John Edmund, Jr.	Los Angeles	Econ. 108+12	Alpha Tau Omega
Phelps, Laurance William A. B., Stanford, 1922.	Palo Alto	C. E. 135·48+45	415 Florence-p
[1]Phelps, Walter Wesley	Stanford Univ.	Econ. 61·77–9	Beta Theta Pi
[124]Pheney, William DeJarld	Durango, Colo.	Geol. 39·49–12	Beta Theta Pi
[1]Phillips, Frances Cecelia	Palo Alto	LD 14+5	337 Hamilton-p
Phillips, LaForest Ethelbert, Jr.	Palo Alto	LD 48–35	337 Hamilton-p
[5]Phillips, Merrill N.	La Habra	Geol. 135·50+56	304 Union
[1]Phinney, Alfred Earl	Kansas City, Mo.	Econ. 103+77	Kappa Alpha
[12]Phyfer, Lamar F. A. B., Stanford, 1922.	New Albany, Miss.	Engl. gr.	718 Bryant-p
Piedmonte, Adolph Louis	Turlock	LD 30·43+31	282 University-p
[5]Pierce, Dorothy Duncan	Los Angeles	Chem. 90·76+76	118 Roble
[1]Pierce, Frederic Ross A. B., Stanford, 1921.	Sacramento	Law gr.	Phi Gamma Delta
Pierce, Leo Francis M. S., Tulane, 1921.	Grinnell, Iowa	Chem. gr.	Los Altos-Box 733, p
Pierce, Martha Foster	Burlingame	LD 45·45+55	356 Roble
Pierce, Shelly Nathan A. B., Stanford, 1922.	Palo Alto	Econ. 182+89	465 Hamilton-p
Pierce, Virginia	Burlingame	LD 46+41	356 Roble
Pigott, Paul Richard	Seattle, Wn.	Geol. 129+4	Phi Delta Theta
[4]Pike, Doris Diana B. A., Wellesley, 1918.	Lubec, Me.	Educ. gr.	263 Churchill-p
[1]Pinkham, LeRoy Samuel	Santa Barbara	LD 19·47–17	Kappa Alpha
[1]Pinkston, Clarence Elmer	San Diego	Econ. 17–34	Phi Kappa Psi
Pischel, Dohrmann Kaspar A. B., California, 1918.	San Francisco	Med. gr.	1817 California, SF-sf
[4]Pisi, M. Cantadore	Sacramento	LD sp.	252 Roble
Pison, Glicerio Tejam A. B., Stanford, 1922.	Molo, Iloilo, P.I.	Chem. 180+118	705 Cowper-p
Pitts, Raymond B. A. B., Stanford, 1922.	Bozeman, Mont.	Ent. gr.	Phi Gamma Delta
Pixley, Florence Adeline	Orange	Engl. 126+33	Alpha Omicron Pi
[12]Plaskett, Elmer Webster A. B., Stanford, 1922.	Watsonville	Econ. 10·174+54	505 Encina
Playter, Robert Franklin	Joplin, Mo.	LD 84+16	Phi Delta Theta
Pleasants, Frances	Nampa, Ida.	LD 39·44+8	369 Roble
Plimpton, John Edward	Everett, Wn.	LD 77+37	524 Encina
Pocock, Ina Moseitus A. B., Indiana, 1913.	Orland, Ind.	Phyl. gr.	567 Lincoln-p
Podesta, Loyal James	San Francisco	Econ. 109+32	410 Encina
Polesky, Fred Alexander A. B., Stanford, 1922.	Long Beach	Med. gr.	226 Union

[34]Polland, W. Scott — Sacramento — LD 17+24 — 137 Encina
Pollard, Glenn Eugene — Spokane, Wn. — Geol. 133+43 — Alpha Delta Phi
Polse, Max L. — Redding — Pre-Clin. 135·39–3 — 406 Ramona-p
Pond, Frederick Raleigh — Napa — Geol. 142+203 — 21 Encina
Poole, John Hammerson — Redwood City — LD 62–9 — 248 Washington, RC-rc
Pope, Grace Shaw — Butte, Mont. — Psych. 188+118 — 266 Roble
A. B., Stanford, 1922.
[4]Pope, Saxton Temple, Jr. — San Francisco — C Lit. (Lat.) — 66 Sequoia
Pope, Willard Bissell — Detroit, Mich. — LD 40–2 — 136 Encina
[12]Popenoe, Herbert — Altadena — Educ. 34·146+127 — 374 Kingsley
A. B., Stanford, 1922.
[34]Porter, Howard Immanuel — San Francisco — LD sp. 8·14+8 — 619 Frederick, SF-sf
Porter, Robert Reynolds — San Jose — Econ. 187+91 — 393 S. 5, SJ-sj
A. B., Stanford, 1922.
Porterfield, Robert Ramey — Santa Monica — LD 48+39 — Theta Xi
[1]Postlewaite, Mark A. — San Antonio, Tex. — M.E. 45·52–12 — Theta Xi
Postlewaite, William R. — San Antonio, Tex. — LD 71+14 — Theta Xi
Potter, Doris Gilbert — Riverside — Ed. G. A. gr. — Madroño
A. B., California, 1921.
[1]Potter, John Alfred, Jr. — Los Angeles — Min. gr. — 522 Encina
A. B., Stanford, 1919; Engineer, 1922.
Potter, Marion Bucklin — Riverside — Engl. 90·90+65 — Pi Beta Phi
A. B., Stanford, 1922.
[5]Pouppirt, Pearl Sylva — Palo Alto — Med. gr. — 1121 Bryant-p
A. B., Stanford, 1921.
[5]Powell, George Townsend — So. Pasadena — Hist. 108+21 — Kappa Sigma
Power, Clifford Harry, Jr. — Ensenada, Mex. — LD 25–13 — 465 Hamilton-p
Prather, William Edward — Palms — Law 106–8 — Phi Kappa Sigma
Pratt, Sylvester Burdett — Pasco, Wn. — LD 20–6 — 535 Byron-p
Preston, Grant Hill — Palo Alto — Pre-Med. 29·38+33 — 315 Alma-p
Preston, Harold Orum — Pacific Grove — Law 133+61 — 64 Sequoia
[4]Price, Edwin — Pasadena — Educ. gr. — Madroño
A. B., Southern California, 1920.
Price, Henry Bertrand, Jr. — Philadelphia, Pa. — LD 47+10 — 201 Encina
Price, Joseph Pressly — Oakland — M.E. 95–3 — 502 Encina
Price, Leslie Wilson — Bouse, Ariz. — LD 43·45+35 — 226 Encina
Price, Oser Franklin — Oakland — M.E. 186+89 — 114 Encina
A. B., Stanford, 1922.
Prior, Charles Henry — Sheffield, Ill. — Engl.-Jn. 120+80 — 32 Sequoia
Prior, Joseph Clifford — Sheffield, Ill. — Econ. 122+159 — 32 Sequoia
[2]Prior, Leland Stanford — Menlo Park — LD 47+8 — R.F.D. 149, MP-mp
[124]Pritchard, Marion Sara — San Francisco — Econ. ‡ 55–7 — Pi Beta Phi
Pritchett, John Perry — Grafton — Hist. gr. — 435 Cowper
A. B., Stanford, 1921; A. M., 1922.

[1]Procter, A. Burt	Pasadena	LD 40–6	249 Encina
[4]Proctor, Hester E.	Palo Alto	Ed.P.E. gr.	433 Melville-p
A. B., Stanford, 1921.			
[12]Proctor, Hudson Milton	San Diego	Psych. 61·120+0	217 Encina
A. B., Stanford, 1922.			
[1]Proctor, Phimister Bayard	Palo Alto	LD 28+1	433 Melville-p
[5]Provine, George T.	McKinney, Tex.	Hist. 90·47+23	Sigma Alpha Ep.
[4]Pryor, Roy Jay	Menlo Park	Educ. gr.	Wm.Warn.Sch.,MP-mp
A. B., Stanford, 1921.			
[12]Purdy, Ben Hart	Jacksonville, Fla.	LD sp.	Alvarado Hall
[5]Putcamp, William J.	Carbondale, Ill.	LD sp. 31·43+11	1106 Ramona
Putnam, Cecil Monroe	Alameda	Law 129+49	Sigma Nu
[12]Quagelli, Henry Joseph	San Francisco	LD 41+16	5 Sequoia
Quigley, John Scott	Alameda	LD 43–15	405 Kipling-p
Quigly, Dorothy	El Paso, Tex.	Engl. 9·175+188	Kap.AlphaTheta
A. B., Stanford, 1922.			
[12]Quinn, George William	San Francisco	LD 15–29	420 Encina
Quinn, Mildred Ruth	Hollywood	Econ. 81·61+19	Delta Gamma
[5]Quintero, Baldwin Peter	Santa Barbara	LD sp. 6·32–2	Delta Chi
Quirmbach, Arthur Herman	Needles	Chem. 132–20	236 Encina
[5]Quirmbach, Robert Paul	Needles	LD 64+42	232 Encina
[23]Radcliffe, Thomas Drew	Stanford Univ.	Min. gr.	557 Encina
A. B., Stanford, 1920.			
Rader, George Albert	Palo Alto	LD sp. 22–20	721 Waverley-p
[2]Rader, Harriet Shaw	Victor, Colo.	Fr. gr.	704 Waverley-p
A. B., Colorado, 1920.			
Railsbach, Oscar Caleb	Hanford	Pre-Med. 100·50+24	Sigma Nu
[4]Ralston, Alice Hough	Butte, Mont.	LD sp.	Roble
Ramey, Earl	Palmdale	LD 64+84	227 Union
[5]Ramsey, Anna Frances	Stanford Univ.	Engl. 164+160	20 Lasuen
[3]Rand, Gerald Stevenson	Vancouver,B.C.	Geol. 44·72–8	Theta Chi
[5]Rankin, Wallace Edmunds	Glen Ellen	Hist. 35·145+135	87 Sequoia
A. B., Stanford, 1922.			
[1]Ratcliffe, Mark Albert	Cheney, Wn.	Econ. ‡ 13+6	249 Kipling-p
Ratner, Ezra	San Francisco	Econ. 40·92–29	318 Union
[23]Ratzell, Florence Irene	Turlock	LD ‡ 28+15	259 Roble
Ratzell, Pauline May	Turlock	Span. 95·56+46	349 Roble
Rau, Thomas Rudolph	Venice	LD 70+42	Phi Kappa Psi
Raubenheimer,Albert S.	George,S.Africa	Educ. gr.	544 Byron
A. M., Columbia, 1921.			
[1]Rawhauser, John G.	Willows	C.E. 101+113	204 Encina
Rawlins, Aubrey Gatliff	Willows	Med. gr.	Y.M.C.A., SF-sf
A. B., Stanford, 1921.			

[234]Rawlins, George Herndon	Globe, Ariz.	Law 79·55+3	Kingscote
[4]Ray, Howard	Palo Alto	Ed.P.E. gr.	465 Hawthorne-p
B. S., Oregon Agricultural College, 1918.			
[1]Rea, Joseph Newell	Ukiah	LD 1–12	444 Encina
Reade, Arthur Cale	Denver, Colo.	M.E. ‡ 25–19	Alpha Sigma Phi
[5]Reavis, J. Ogden	Bakersfield	Law 124+113	62 Sequoia
[4]Redding, Wm. Francis	Meshanticutt, R.I.	Educ. gr.	
M. A., Brown, 1920.			
Redeker, Ivan Monroe	Palo Alto	M.E. 139+82	353 Melville-p
Redfield, William Adelbert	Palo Alto	Engl. 97·44+40	1164 Hamilton-p
[12]Reed, Myron Carlton	Denver, Colo.	Geol. 46+1	Theta Xi
Reed, Myron Nelson	Portland, Ore.	Econ. 90+67	Beta Theta Pi
[1]Reeder, Jesse Samuel	Fresno	LD 50+4	Delta Chi
[4]Rees, Helen Shafer	Denver, Colo.	LD	207 Roble
[1]Rees, Jack Cardigan	Los Angeles	LD 4–27	Zeta Psi
Reese, Lewis, Jr.	Modesto	LD 92+16	43 Encina
Rehfuss, Carl William	Salem, Ore.	Chem. 189+140	318 Encina
A. B., Stanford, 1922.			
Reichmuth, Anton Lawrence	San Francisco	LD 65–10	434 Encina
Reid, Katharine	Los Angeles	Econ. 180+97	Delta Gamma
A. B., Stanford, 1922.			
Reinemund, Byron Russell	San Diego	LD 33·39+29	223 Cowper-p
[12]Reinhold, Lisle W.	Montrose, Colo.	Geol. 12·168+9	Delta Upsilon
A. B., Stanford, 1922.			
Relph, Harold Edward	San Jose	LD 57–2	Alpha Kappa Lambda
[134]Rendtorff, Gertrude E.	Stanford Univ.	LD 27+7	30 Alvarado
[5]Repass, Merle Marion	Hughson	Min. gr.	546 Encina
A. B., Stanford, 1921.			
[14]Reticker, Roland Wilson	Los Angeles	Econ. 39·36–25	Delta Chi
[5]Rettenmayer, Carl A.	Loup City, Neb.	LD 38·52+44	435 Encina
[1]Retterath, Oma Lillian	Williams	Educ. gr.	Alpha Omicron Pi
A. B., Stanford, 1921.			
Reynolds, Frances Elizabeth	Alhambra	LD 23–1	376 Roble
[4]Reynolds, Helen M.	Santa Barbara	LD	253 Roble
Rhea, Booth Buford	Pulaski, Tenn.	LD 58–18	436 Waverley-p
[234]Rhoades, Ralph Omer	Miami, Okla.	Geol. 94·79+31	21 Encina
Rhodes, Arthur Pym	San Francisco	Sch. Ed. gr.	98 Falcon, SF-sf
A. B., California, 1921.			
Rhodes, Orlando Hunter	Santa Monica	Law 132+64	Phi Kappa Psi
Rice, Clarence DePuy	Palo Alto	Educ. gr.	339 Emerson-p
B. S., Nevada, 1921.			
[24]Rich, Murray Weir	New York, N.Y.	Phil. gr.	601 Webster-p
B. S., Colgate, 1919.			
Richards, Lawrence Wayne	Los Angeles	LD 55–9	Delta Upsilon

[4]Richards, Mary-Emma — San Jose — Educ. ‡ 12+7 — Kappa Alpha Theta
[12]Richardson, Donald Bird — Palo Alto — LD 63+2 — 460 Kingsley-p
[4]Richardson, George A. — San Diego — Educ. gr. — 567 Lincoln-p
B. S., South Dakota State School of Mines, 1921.
[234]Richardson, Helen Dale — Palo Alto — LD ‡ 20–12 — 460 Kingsley-p
[23]Richardson, Ira — Maryville, Mo. — Educ. gr. — 731 Hamilton-p
Ph. B., Central, 1897; A. M., Columbia, 1908.
Richardson, Margaret Louise — Los Angeles — LD 24·74+23 — Delta Gamma
[4]Richardson, Paul Eddy — Glendale — M.E. 68–2 — Sigma Chi
[5]Richardson, Rémond W. — Washington, D.C. — Geol. 10·167+132 — 115 Alma-p
Richardson, Robert D. — Wynnewood, Okla. — Econ. 111–1 — 327 Encina
Richer, John Daniel — Los Angeles — LD 86+34 — Alpha Tau Omega
[1]Richey, Nellie Jane — Merced — LD 9–16 — 355 Roble
Richmond, Carrol Leland — Los Angeles — Econ. 15·170+45 — Phi Kappa Psi
A. B., Stanford, 1922.
Ridley, Daniel Graves — San Jose — Pol.S.-Law 128+6 — 401 Encina
[5]Riegle, John, Jr. — Taft — Geol. 99·47+11 — 123 Encina
Riese, Leon Raymond — San Francisco — LD 62+12 — 447 Encina
Righetti, Tilden — Orcutt — LD 5–8 — 404 Encina
[4]Riley, Elizabeth Bolton — Palo Alto — LD sp. — 809 Boyce-p
Ringdahl, Reuben N. — Wheaton, Minn. — Econ. 129·51+55 — 539 Homer-p
A. B., Stanford, 1922.
[12]Ringle, Arthur L. — Greeley, Colo. — Zool. 90–14 — 50 Sequoia
Rinn, Robert H. J. — Lodi — LD 47+42 — 10 Sequoia
[12]Riordan, Harold Joseph — San Jose — Chem. 48·53–17 — 1620 Alameda, SJ-sj
Rippey, Stanton — Los Angeles — LD 43+11 — 318 Lincoln-p
[5]Risdon, Anita Starr — Independence, Kans. — Econ. 13·160+227 — 641 Gilman-p
[124]Rising, Franklin Edw., Jr. — Los Angeles — LD 28–4 — Sigma Nu
Ritchie, Kenneth Sinclair — Stanford Univ. — Chem. gr. — 504 Encina
A. B., Stanford, 1921.
Riter, R. Bradley — Logan, Utah — LD 91+66 — 12 Sequoia
[5]Rixford, Henry Covington — San Francisco — LD 10–22 — 209 Encina
Robbins, Carl Burton — Port Norris, N.J. — LD 45+7 — 436 Florence-p
Robbins, Catherine Jennie — Santa Barbara — Math. 15·176+216 — 369 Forest-p
A. B., Stanford, 1922.
[4]Roberts, Ada Jane — McCleary, Wn. — LD ‡ 18+25 — 101 Roble
[134]Roberts, Dwight Conklin — Los Angeles — Geol. 130·36+13 — Delta Upsilon
[1]Roberts, Dwight Fulton — Riverside — LD ‡ 7–8 — 171 Emerson
Roberts, Fred Gordon — Berkeley — M.E. gr. — 231 Encina
A. B., Stanford, 1921; Engineer, 1922.
[23]Roberts, George Duncan — Calexico — LD 27+0 — Phi Delta Theta

[4]Roberts, Sara A.	Wilbur, Wn.	Engl. gr.	Roble
A. B., Washington, 1921.			
Robertson, Alan Hazelton	Santa Monica	LD 30+16	Phi Kappa Psi
Robertson, Donald Logan	Modesto	Phyl. 127+120	21 Sequoia
Robertson, John W.	San Francisco	LD 44–5	248 Encina
[124]Robertson, Kenneth Gregg	Piedmont	Phil. 70·41+24	71 Sequoia
[5]Robertson, Margaret M.	Redwood City	Pre-Clin. 208+36	Kap. Alp. Theta
A. B., Stanford, 1922.			
[4]Robinson, Bevier	Santa Ana	Pol.S.	Sequoia
[4]Robinson, Dwight Louis	Sapulpa, Okla.	LD	557 Hamilton
Robinson, Floyd Amos	Gilroy	Econ. 138+29	223 Encina
Robinson, Frances duBrutz	Aurora, Ore.	LD 43+2	1200 Bryant-p
Robinson, Jere W., Jr.	Boise, Ida.	E.E. gr.	246 Encina
A. B., Stanford, 1922.			
[12]Robinson, John Hartson	Auburn	Econ. ‡ 86+11	330 Encina
[4]Robinson, Stanley	Herndon	LD 8+13	29 Sequoia
Robison, Russell Roscoe	Jackson	LD 99+34	423 Encina
Robson, Dorothy Joyce	Campbell	Hist. 4·142+146	256 Roble
Roby, Richard Rush	Colo.Springs,Colo.	LD 45–12	545 Bryant-p
[3]Rochester, George Wm.	Marion, Ill.	Law ‡ 3–13	Delta Tau Delta
[234]Rockwell, Catherine Verona	Pomona	Bot. gr.	Madroño
B. S., Knox, 1914.			
[5]Rodriguez, Richard J.	Chico	LD 67·61+18	126 Encina
[12]Rogers, Ada Birdella	Hanford	LD 67+24	Kappa Alpha Theta
Rogers, Alfred Emery	Los Angeles	LD 41+18	362 Encina
[4]Rogers, Alice Darline	Fresno	LD	
[4]Rogers, Frederick Rand	San Jose	Educ. gr.	325 Everett-p
A. B., Stanford, 1920.			
[3]Rogers, Genevieve	Stanford Univ.	LD 15+15	331 Roble
Rogers, Lee Hershey	Salt Lake City,U.	LD 49+22	140 Encina
[5]Rogers, Marvin Alexander	Akins, Okla.	Educ. 135·45+5	835 Cowper-p
A. B., Stanford, 1922.			
Rogers, William Lister	Hayward	Phyl.-Med. 168+110	Kappa Sigma
Rohner, Arnold John	Palo Alto	M.E. 157+20	Newell Rd.-p
[23]Roley, Cecil Albert	Washougal, Wn.	LD sp. 15–20	459 Hamilton-p
[12]Roller, Wendell Hoerle	Palo Alto	LD 32–24	404 Cowper-p
[5]Rolley, Leslie E.	Henry, Ill.	LD sp. 19–2	R. 1, Box 8a-p
[4]Rominger, Dorothy M.	Long Beach	Hist. ‡ 33–21	321 Roble
[12]Roosman, Paul Ferdinand	Kingsburg	Chem. 186+127	303 Encina
A. B., Stanford, 1922.			
Roper, Elizabeth Virginia	Los Angeles	LD 46+44	272 Roble
Rorke, Harold Bandow	Hollywood	Law 94–26	Phi Gamma Delta
[1]Rose, Milton I.	Venice	Zool.-Med. 90·60+30	636 Gilman

[3]Rosebrook, Genevieve C.	Palo Alto	LD 25+2	336 Emerson-p
[23]Rosenbaum, Charles W.	San Francisco	LD 30–8	200 Encina
Rosenbaum, Mervin Fred	San Francisco	Hist.-Law 112+7	558 Encina
Rosenblatt, Millard Samuel	Portland, Ore.	Phyl.-Med. 60·132+184	534 Encina
A. B., Stanford, 1922.			
[34]Rosenburg, Philip	Hollywood	LD 15+0	121 Encina
[34]Rosenfield, Milton S.	St. Joseph, Mo.	Law ‡ 12+0	229 Union
Rosenthal, Alice	Spokane, Wn.	LD 47·41+63	323 Roble
[34]Ross, Arthur Alexander	Kuna, Ida.	LD sp. 9·13+3	235 Encina
Ross, Blanch Emline	Redwood City	Span. 135+175	Alpha Phi
[12]Ross, Dean Ralph	Alhambra	Econ. 119+90	Alpha Tau Omega
[4]Ross, Florence S.	Lemoore	Ed.P.E. gr.	
A. B., Nebraska, 1915.			
[34]Ross, Gordon McKinnon	Kuna, Ida.	LD sp. 12+0	235 Encina
[4]Ross, Howard Foster	Lemoore	Ed.P.E. gr.	311 Ramona Bldg.-p
A. B., Miami, 1916.			
Ross, James Gordon	Santa Barbara	Econ. 14·105+17	335 Encina
Rossarini, Edith Yola	Truckee	LD 42+54	355 Roble
Roth, Alice Caroline	Willits	LD 84+44	Santa Teresa
[12]Rothschild, Rene Levy	Greeley, Colo.	LD 47+17	200 Encina
Rouse, Marshall Keene	Mankato, Minn.	Chem. gr.	234 Encina
A. B., Stanford, 1921; Engineer, 1922.			
[5]Rousselot, Harbin Michon	Oakland	Econ. 174+83	Kappa Alpha
[5]Rousselot, Norman Auguste	Oakland	Geol. 151+113	Kappa Alpha
[5]Row, Martin Armel	OklahomaCity, Okla.	LD 40+30	Convalescent Home
Rowe, Alberta Elizabeth	San Jose	Econ. gr.	118 Naglee, SJ-sj
A. B., California, 1921.			
Rowell, Milo Edwin	Fresno	LD 80–6	Alpha Sigma Phi
Rowland, DeWitt Clark	Tacoma, Wn.	LD 95+90	332 Encina
Rowland, Gilford Glenn	Blackfoot, Ida.	Pol.S.-Law 139+159	319 Encina
[1]Rowland, Homer Harold	Santa Monica	LD 13–22	448 Encina
[32]Rowland, Robert Russell	Santa Monica	LD 34–28	448 Encina
[12]Rowles, Fillmore	Mountain View	LD 24–25	1008 Railroad, MV-mv
[1]Rozeboom, Egbert Andrew	Palo Alto	LD 15+5	720 Waverley-p
[2]Ruch, Giles Murrel	Eugene, Ore.	Educ. gr.	319 Union
A. B., Oregon, 1914; Ph. D., Stanford, 1922.			
Rulofson, Kenneth T.	San Francisco	LD 66–20	Zeta Psi
[5]Rumwell, Arnold	San Francisco	LD 34–16	
Runyan, James Nelson	EllwoodCity, Pa.	LD 44–26	448 Encina
[5]Rush, John Louis	Denver, Colo.	Law gr.	Phi Kappa Psi
Ph. B., Denver, 1921.			
[5]Russ, Glen Allen	Carlotta	Engl. 30·147+65	306 Encina

[4]Russell, Erma Laura A. B., Mount Holyoke, 1920.	Colliersville, N.Y.	Sch.Ed. gr.	215 Roble
[2]Rust, Virginia Lee	Salt Lake City, U.	Econ. ‡ 14+19	227 Roble
[5]Rutter, Cloud D.	San Francisco	LD 79+3	Delta Chi
[234]Ryan, Frederick Lynne B. S., Tufts, 1916.	Mayfield	Econ. gr.	932 Palo Alto, M
[3]Ryan, William Burke	Creston, Iowa	LD sp. 12+6	481 University-p
Sadler, Marjorie Elizabeth A. B., Stanford, 1921.	Palo Alto	Math. gr.	420 Homer-p
Sager, Charles Harpham	Waukegan, Ill.	LD 47–21	9 Sequoia
Saier, Milton Herman	Fresno	LD 98+3	Theta Xi
[4]Salisbury, Frank S. A. B., Washington, 1916; A. M., 1918.	Renton, Wn.	Educ. gr.	720 Lincoln, M-m
[5]Sampson, Richard Hunt	Los Angeles	Hist.-Law 107+71	Delt. Kap. Ep.
Samuel,Edmund Willard	Mt.Carmel,Pa.	M.E. ‡ 95+7	212 Hanover, M
[5]Sanborn, Lewis Hampton A. B., Stanford, 1921.	San Francisco	Med. gr.	2202 Calif., SF-sf
[5]Sandberg, W. Lee	Collins, Mont.	Econ. 95+46	Delta Chi
Sanders,Gerard Geo.	Wassenaar,Holland	Engl. 67-103+136	666 Tennyson-p
Sandretto, Paul J. B.	Fosteria	M.E. 141+116	431 Encina
Sands, Albert W.	Stanford Univ.	Geol. 98+48	406 Encina
[12]Sanford, Dudley Phelps	San Jose	Phyl.-Med. 167+23	Grant Rooms
Sanford, Harold Shaw	San Francisco	LD 42–38	522 Encina
Sanguinetti, Melvin Stephen	Lodi	LD 45+65	627 Emerson-p
[12]Sano, Joseph Yuzuru	San Francisco	LD 44–2	Japanese Club
[34]Sansom, Clarence A. B., New Brunswick, 1905.	Edmonton, Alta.	Educ. gr.	515 Waverley
Sansone, John Baptist	Toronto,Ont.,Can.	Geol. 131+72	222 Encina
[5]Sant, George Renshaw	San Francisco	Econ. sp. 75–2	Zeta Psi
Sapero, Kalmen Y.	Long Beach	Econ. 133+113	34 Sequoia
[5]Sappington, Emmett Earl A. B., Stanford, 1922.	Watsonville	Phyl.-Med.103-132+137	43Sequoia
Sargent, Aaron More	San Francisco	M.E. 135+120	129 Encina
[1]Sargent, Virginia A. B., Stanford, 1922.	Los Angeles	Chem. 46-134+113	Delta Gamma
[5]Saunders, Lowell Walter	Red Bluff	Geol. 121+36	Phi Kappa Sigma
[5]Sawyer, Theodore K.	Swarthmore, Pa.	Geol. 67–11	401 Encina
[5]Schall, Wheeler F.	Fort Collins, Colo.	Econ.-Jn. 34-96+38	11 Salvatierra
Schardin, Helen Katherine	Sacramento	LD 18-89+92	Delta Delta Delta
Scheib, Howard Joseph	Denver, Colo.	LD ‡ 37–24	Phi Delta Theta
[4]Schenk, Hubert Gregory A. B., Oregon, 1922.	Eugene, Ore.	Geol. gr.	Livermore-l
Scherf, Elmer Emil	San Jose	Econ. 124+51	Delta Tau Delta

[3]Schindler, Willard James	Flint, Mich.	Hist. 8–22	W.W.Sch., MP-mp
[12]Schlesinger, James W. L.	San Francisco	Econ. 14·53–4	Sigma Nu
Schmid, Harold William	Oberon, N. D.	LD 77–3	235 Emerson-p
Schmieder, Fremont R.	San Francisco	LD 71+33	420 Encina
Schneider, Phillips Sumner	Berkeley	Econ. 96+18	Zeta Psi
[4]Schock, Pearl	Salt Creek, Wyo.	Math. ‡	328 Union
[34]Schoen, Arthur Castle	Hilo, T.H.	LD 16+14	106 Encina
[34]Schultz, Alfred F.	Tripoli, Ia.	LD 5·64–5	
[23]Schultzberg, Frank I.	San Francisco	LD 33+26	W.W.Sch., MP-mp
[1]Schultzberg, George	Salinas	Educ. 104·73+69	374 Kingsley
[12]Schultze, La Vinus Julius	Zearing, Ia.	LD 13–14	117 Hamilton-p
[1]Schumacher, John	Los Angeles	Law 178+0	Phi Gamma Delta
Schuster, Helen	Los Angeles	Econ. 180+112	300 Roble
A. B., Stanford, 1922.			
[12]Schwab, Lloyd E.	Alturas	C.E. 119+18	527 Emerson-p
[1]Schwartz, Karl Roger	Santa Monica	LD 12–23	20 Alvarado
[12]Schwartz, William Francis	Santa Monica	Econ.-Law 100–20	PhiKap.Sigma
[23]Schwartz, William L.	Mayfield	Fr. gr.	421 Harvard, M
A. B., Ohio Wesleyan, 1910; A. M., Stanford, 1920, Ph. D., 1922.			
[234]Schwenk, Julius Rae	Salt Lake City, U.	Chem. gr.	318 Union
A. B., Utah, 1921.			
[4]Schwiering, Oscar C.	Rock Springs, Wyo.	Educ. gr.	Runnymede Park
A. B., Iowa Wesleyan, 1909; A. M., Wyoming, 1916.			
[23]Scofield, Norman McCray	Palo Alto	M.E. 142–15	430 Kingsley-p
Scofield, Philip Forest	Palo Alto	LD 84+60	430 Kingsley-p
Scott, Josephine	Los Angeles	Hist. 135+118	248 Roble
Scott, Ralph S.	Washington, D.C.	Law gr.	222 Union
A. B., George Washington, 1921.			
Scott, Raymond Robert	Selma	Zool.-Med. 47·133+145	227 Encina
A. B., California, 1922.			
Scribner, Harold Wyndham	San Francisco	M.E. 137+25	40 Sequoia
Scribner, Theodore Edw.	San Francisco	LD 77+93	66 Sequoia
Scudder, Joseph Broadhurst	Trenton, N.J.	LD 45+44	628 Gilman
[5]Seaman, Wesley Albert	Marshfield, Ore.	Law 29·158+5	25 Salvatierra
Searcy, Helene Wilhelmina	Durango, Colo.	Pre-N. 166+112	Roble
[34]Seay, Wellford D.	Stanford Univ.	Hist. gr.	17 Alvarado
A. B., Occidental, 1913.			
[34]Seeger, Thomas F.	Palo Alto	LD 14+0	446 Hamilton-p
Seelig, Miriam	Los Angeles	Econ. 186+295	302 Roble
A. B., Stanford, 1922.			
Seib, Lester Leo	Hollywood	Econ. 180+60	Alpha Delta Phi
A. B., Stanford, 1922.			
Seitz, Roland Peter	San Francisco	Med. gr.	1512 Masonic, SF-sf
A. B., Stanford, 1919.			

[5]Selna, Adeline Aurora — Stockton — Span. 4·163+139 — 263 Roble
Semino, Angelo F. — Mountain View — M.E.34·167+230 R.2,B.149,MV-mv
A. B., Stanford, 1922.
Senior,Clair Marcil — Salt Lake City, U. — Law 40·133+228 — 59 Sequoia
Senter, Wm. Allan, Jr. — Salt Lake City, U. — C.E. 69·61+16 — 28 Sequoia
[1]Sentous, Alvin — Stanford Univ. — Geol. 197+21 — Delta Kappa Epsilon
A. B., Stanford, 1922.
Sergeyeff, Sergey S. — Petrograd, Russia — Engl. 180+108
A. B., Stanford, 1922.
Serrurier,LawrenceRoland — Portland,Ore. — Chem. 190+270 — 419 Encina
A. B., Stanford, 1922.
Sette, Oscar Elton — Chula Vista — Zool. 84·96+108 — 65 Sequoia
A. B., Stanford, 1922.
Sewall, Russell Williams — Portland, Ore. — Law 34·190+40 — Chi Psi
LL. B., Stanford, 1922.
Sewell, Charles Alvin — Elko, Nev. — Econ. 139+127 — SigmaAlp.Epsilon
Seymour, David Bruce — Santa Rosa — LD 84–6 — 329 Encina
Seymour, John Barton — Nyack, N. Y. — Econ. gr. — Kingscote
B. A., Hamilton, 1895; A. M., Stanford, 1922.
[1]Shakespeare, Donald D. — Monte Vista — LD sp. — 11 Salvatierra
Shamberger, Hugh Allan — Payette, Ida. — C.E. 184+10 — 29 Encina
A. B., Stanford, 1922.
Shannon, George Pope — Franklin, Tenn. — Engl. gr. — Belmont-b
A. B., Vanderbilt, 1917.
[5]Shannon, Patrick — Long Branch, N.J. — LD 11·60+29 — Alexandria Hotel
[12]Sharp, James Graham, Jr. — Palo Alto — LD 31+32 — 951 Hamilton
[12]Sharp, John Chester — Seattle, Wn. — Phyl. 11·124+75 — Theta Chi
[4]Sharp, Milo Corlett — Riverside — LD — Sequoia
[4]Shaughnessy, Rose G. — Axtell, Kans. — LD — 515 Waverley
Shaull, Ethel Mae — Los Angeles — LD 6·90+147 — 366 Roble
Shaw, Elton Sutherland — San Jose — M.E. 51·149+26 — Delta Upsilon
A. B., Stanford, 1922.
Shaw, Perry Mason — Berkeley — Econ. ‡ 70–21 — Sigma Chi
Sheahan, Edward K. — Ocean Falls, B.C. — Law 63–32 — Beta Theta Pi
Sheffield, Carlton Allyn — Long Beach — Engl.–Jn. 139+40 — 32 Encina
[4]Sheldon, Althea Morgan — Claremont — Engl. gr. — Madroño
A. B., Washington, 1903.
[5]Sheldon, Frances Elizabeth — Los Angeles — Law 180+236 — Gamma Phi Beta
A. B., Stanford, 1922.
Shepard, Arthur Elliott — Fresno — LD 51–10 — 324 Encina
Shepard, Orson Cutler — San Jose — LD 45·44+32 — 24 Sequoia
[3]Shepard, Rebecca Jessie — Glendale — Span. gr. — Madroño
A. B., Pomona, 1922.
Shepard, Stella Dorothy — San Jose — LD 90+54 — 114 Roble

Shepherd, Harold A. B., Stanford, 1919; J. D., 1922.	Paris, Ida.	Law gr.	1027 Bryant-p
Shepherd, Theodore H.	Hollywood	M.E. 128+3	22 Sequoia
[4]Sherer, Burdette B.	Piqua, Ohio	L.D. sp.	362 Roble
Sherer, Horace Carroll	Long Beach	C.E. 61·95+3	727 Cowper-p
[7]Sherman, Ira Lawrence	Los Angeles	LD 15+19	25 Sequoia
Sherman, Richard Wade A. B., Stanford, 1922.	Palo Alto	Geol. 55·181+38	427 Webster-p
[23]Shermund, Ralph Conrad	San Francisco	LD 21+0	Kappa Alpha
[28]Sherrard, Dorothy Addine	Los Angeles	Engl. 4·166+243	Alpha Phi
Sherrill, Frederick Orlo	Riverdale	LD 31–13	251 Encina
[12]Sherwood, Frank Tunison	Palo Alto	LD sp. 15–1	1020 Waverley
[3]Shevky, Richard Ph. D., Stanford, 1922.	San Francisco	Med.Dept. gr.	2232 Calif., SF-sf
Shiels, William C. E. A. B., Stanford, 1922.	San Francisco	Econ. 10·175+71	Phi Delta Theta
[4]Shillock, George Woodburne	Palo Alto	LD	363 Melville-p
Shipkey, Harry Hector, Jr.	Fullerton	LD 53+11	Kappa Sigma
Shipp, Frederic Thomas A. B., Stanford, 1922.	Watsonville	Econ. 59·123+154	Delta Chi
Shipp, Kenneth James	Watsonville	Econ. 160+103	Delta Chi
Shlaudeman, Robert A. B., Stanford, 1922.	Pasadena	Econ. 183+83	312 Union
Shoenhair, George J., Jr.	Los Angeles	LD 81–9	Delta Upsilon
[5]Shott, Ralph Nelson	Birmingham, Ia.	Pol.S.88·63+45	80 Sequoia
Shoup, Carl Sumner	Los Altos	LD 91+145	Phi Delta Theta
Show, Joseph Henry A. B., Stanford, 1922.	Palo Alto	Geol. 24·181+55	234 Encina-p
Sibley, John Thornton A. B., Stanford, 1922.	Los Angeles	Econ. 184+29	Phi Gamma Delta
Siddle, Robert William	Cody, Wyo.	Zool. 122+35	Menlo Heights
Sidway, Charles Lee	Ocean Park	LD 92+23	116 Encina
[34]Siebert, Alfred A. B., California, 1921.	Stanford Univ.	Med. gr.	Union
[4]Siebert, Marie Harriet	Santa Ana	LD ‡	628 Gilman-p
Sievers, John Paul	La Habra	LD 44+8	115 Everett-p
[7]Silayan, Hilarion Silvestre B. S., University of the Philippines, 1917.	Chico	Bot. gr.	La Paloma Cafe
Silveira, Joseph Theodore A. B., Stanford, 1922.	Sebastopol	Geol. 4·185+140	317 Encina
Silver, Charles Richard	Irvington	LD 62+39	12 Sequoia
Simmons, Elisabeth Crocker	Sacramento	LD 44+10	240 Roble
[23]Simmons, Josephine Osmond A. B., Stanford, 1922.	Palo Alto	Educ. 67·120+10	625 Hamilton-p

Simmons, Rouse A. B., Stanford, 1922.	Portland, Ore.	Geol. 53·147+185	Chi Psi
[12]Simmons, Sam'l Bradford	Sacramento	C.E. 70–15	Zeta Psi
[23]Simon, Dewey	Ely, Nev.	Econ. 150+78	505 Encina
[5]Simons, Herbert Rule	Riverside	Geol. 76·78+19	Delta Tau Delta
Simpson, J. Edwin A. B., Stanford, 1921; J. D., 1922.	Fresno	Law gr.	539 Encina
Simpson, Matthew Cheney A. B., Stanford, 1921.	Long Beach	Law gr.	Alpha Sigma Phi
[1]Sinclair, Jesse Donald	Petaluma	Geol. 70+8	Theta Delta Chi
[1]Singh, Jalwant	Amritsar, India	Pol S.-Law 76–15	560 Encina
[4]Sisson, Sallie	San Diego	LD	344 Roble
[5]Skelton, Leland Rice A. B., Stanford, 1917.	Palo Alto	Law gr.	712 Waverley-p
[34]Skrivanek, Vladimir	Jicin, Bohemia	LD sp. 7–6	352 Encina
[4]Slater, Kenneth N.	Mountain View	Educ. 39+33	696 Bailey, MV-mv
[4]Sleeth, Gail B. A., Oklahoma, 1921.	Norman, Okla.	Engl. gr.	Madroño
Slingerland, Jacob	Kasson, Minn.	LD 97+104	323 Encina
[12]Sloan, George Westall A. B., Stanford, 1922.	Palo Alto	Econ. 180+81	815 Cowper-p
Sloan, Le Roy	Palo Alto	LD 47+26	815 Cowper-p
Sloan, Mary Caldwell A. B., Stanford, 1922.	Phoenix, Ariz.	Zool. 199+229	Sigma Kappa
Sloan, Thomas Kemp	Mountain View	Chem. 136+50	AlphaKap.Lambda
Sloss, Richard Louis	San Francisco	LD 98+90	23 Encina
[234]Slosson, Albert Edward	Palo Alto	LD 22+3	253 Fulton-p
[5]Slutsk, Jack	Lemon Grove	Chem. ‡ 10–5	304 Encina
Small, Edwin Warren A. B., Stanford, 1922.	San Mateo	M.E. 10·173+36	635 Bryant-p
Smith, Albert Edward	Sacramento	LD 37–7	251 Encina
[3]Smith, Alice Myrmida	Hollywood	Econ. ‡ 15+15	Roble
[4]Smith, Alma Pearl	Los Angeles	LD sp.	358 Roble
[12]Smith, Archie Alexander	Fresno	LD 58+8	Sigma Nu
Smith, Carl Victor A. B., Stanford, 1921.	Oakland	Law gr.	19 Encina
Smith, Cecil Jules	Los Angeles	LD 60+12	423 Encina
Smith, Charles Gordon A. B., Stanford, 1922.	Campbell	Econ. 181+74	328 Encina
Smith, Charles Herbert	Saratoga	M.E. 132+52	38 Sequoia
Smith, Edgar Tevis	Los Angeles	LD 63+36	Phi Kappa Sigma
[4]Smith, Edwin Oscar A. B., McKendree, 1908; A. M., 1909.	Pasadena	C.Lit.(Lat.) gr.	46 Sequoia
[4]Smith, Erna	Kansas City, Mo.	Econ. 118·16+22	Roble

Smith, Everett Russell	Los Angeles	LD 7–19	209 Addison
[5]Smith, Forrest Virgil	Kewanee, Ill.	LD sp. 57+18	115 Everett-p
[5]Smith, Francis Albert A. B., Stanford, 1922.	Palo Alto	Chem. 37·143+173	600 Lincoln-p
[1]Smith, Francis Thornton, Jr.	San Jose	LD sp. 21–7	Cooksey Lodge
[234]Smith, Frank Lee	San Carlos	C.E. sp. 17+0	Box17,SanCarlos-sc
[5]Smith, George James	San Francisco	LD 71+51	Theta Chi
Smith,Harold William	Port Huron,Mich.	M.E. 92·47–7	140 Encina
Smith, Henry Perry	Palo Alto	LD 11·50+9	1101 Forest Court-p
Smith, Howard Carlisle	Palo Alto	LD 45+24	1335 Cowper-p
Smith, Irving M.	Palo Alto	Pol.S.-Law 42·139–4	731 Emer'n-p
Smith, Irving M. Scott	San Francisco	LD 95+38	208 Encina
Smith, J. Howell	Big Creek	Econ. 133+85	Zeta Psi
[12]Smith, Jack Lute	Chico	LD 9–25	739 Bryant-p
[12]Smith, James Holland	Santa Barbara	Phil. 31–16	231 Cowper-p
[3]Smith, Jessie Edna A. B., Stanford, 1916; A. M., 1917.	Palo Alto	Fr. gr.	555 Lytton
Smith, Lemuel Coats, Jr.	Palo Alto	M.E. sp. 10·89-7	333 Encina
[1]Smith, Lewis Anderson A. B., Stanford, 1922.	Pearce, Ariz.	Geol. 10·176+79	Theta Xi
Smith, Norwood B., Jr.	Woodside	LD 56–5	Woodside-w
[5]Smith, Pearl Mabry M. A., Wisconsin, 1916.	Los Angeles	Pre-Med. gr.	Harker's School-p
Smith, Philip Grey	Los Molinos	Law 67·87+109	Sequoia
Smith, Ralph Day	Hutchinson, Kans.	C.E. ‡ 36–20	Kingscote
[1]Smith, Ralph Orace A. B., Idaho, 1920.	Leland, Ida.	Hist. gr.	Chinese Club
[5]Smith, Richard Chatfield	NewYorkCity	Econ. 10·134+36	51 Sequoia
[23]Smith, Robert Layton	Spokane, Wn.	LD 15+1	205 Union
Smith, Ross Stewart	Palo Alto	LD 58+6	920 Waverley-p
Smurr, Charles Franklin	Los Angeles	LD 89–14	Kappa Sigma
[1]Snedden, Donald Scott	Yonkers, N.Y.	Phil. 10·97+70	Alpha Tau Omega
Snell, James Hall	Browns Valley	LD 91+17	232 Encina
[2]Snell, Lester William A. B., Stanford, 1915.	Raton, N.Mex.	Min. gr.	Hotel Larkin
[12]Snodgrass, Melvin Dudley	Santa Rosa	LD 4–27	30 Encina
Snook, Walter Bonnard A. B., Stanford, 1922.	Berkeley	Geol. 80·102+16	Sigma Nu
Snow, Abby Joy A. B., Stanford, 1922.	Boise, Ida.	M.E. 190+251	246 Encina
[1]Snow, Irving Walter A. M., California, 1907.	Palo Alto	Educ. gr.	928 Waverley-p
Snow, William Boring	New York City	M.E. 142+191	38 Sequoia
Snyder, Harry Lay	Palo Alto	LD 48–16	733 Addison-p

[4]Snyder, J. W. Owensboro, Ky. Educ. ‡ 8 Settle, SJ-sj
[4]Snyder, Lucille Holbrooke San Jose Educ. 97·18+10 Roble
[1]Sollman, Maurice Stanford Univ. Pre-Med. ‡ Alvarado
[24]Solomon, Fred Frank Miami, Ariz. LD 4–14 105 Encina
Somerfield, Harry Alex. Cincinnati, O. Med. gr. 2321 Sacramento, SF-sf
A. B., Stanford, 1921.
[5]Somers, Melvin Ralph Hollywood Chem. 44·86+37 511 Encina
[34]Soper, Harold Calhoun Palo Alto Law 107·13+5 Phi Kappa Psi
Sortor, Charles Holland Tulare M.E. 136+108 330 Encina
[3]Soule, Madeleine Alhambra Engl. 116·7+2 17 Alvarado
Southwell, William Lee Ogden, Utah Law 172+43 233 Encina
[12]deSouza, Luis José Quepem, Goa, India Hist. gr. 45 Sequoia
A. B., Stanford, 1921; A. M., 1922.
Spangler, Lura Lee Los Angeles Span. ‡ 40+15 346 Roble
Spangler, Martha Jane Los Angeles LD 46·44+34 348 Roble
[12]Spangler, Raymond L. S. San Francisco LD46+38 Eucalyptus Av., S.SF-ssf
[5]Sparks, Dale Darrell Los Angeles Geol. 95·82+23 476 Forest-p
Spaulding, Harold Sheerer Phoenix, Ariz. M.E. 52·86+82 22 Sequoia
Spaulding, Ruth Isabel Palo Alto Econ. 181+96 528 Channing-p
A. B., Stanford, 1922.
[4]Spears, Emma Estella San Diego LD 354 Roble
Spears, Julia Buckner Dallas, Tex. Engl. 137+93 Kingscote
[4]Specking, Inez St. Louis, Mo. Engl. gr. 326 Roble
B. A., Harris Teachers' College, 1922.
[1]Spencer, Masten San Francisco LD 30+21 557 Hamilton-p
[12]Spencer, Percival I. V. Los Angeles LD 30+21 29 Salvatierra
Spencer, Robert Phillip Santa Monica LD 90+57 345 Encina
[1]Spieler, Nathaniel F. San Francisco LD 27–3 137 Encina
Spielman, John Van V. Long Beach C.E. 7·192+134 117 Encina
A. B., Stanford, 1922.
Spiers, Robert Joshua Middletown Geol. gr. 317 Encina
A. B., Stanford, 1922.
Spilman, Elizabeth Brewer Palo Alto Law 181+277 471 Addison-p
A. B., Stanford, 1922.
[3]Spilman, Ruth Lee Palo Alto LD 43+63 317 Roble
[12]Spratley, John Walter, Jr. Palo Alto M.E. 14·121+40 1200 Stanford, M
Spring, Carl William Cupertino LD 49+14 Cupertino-c
[12]Sproul, Westin G. Casper, Wyo. LD 18–19 538 Cowper-p
Sproull, Henry Franklin San Jose Chem. 5·128+23 Beta Theta Pi
[3]Spruyt, Frederik Johannes Soest, Holland Zool. gr. 324 Union
Gerard Adrian Van Sureton Horticultural School.
[5]Spurlock, Franklin, Jr. Covelo Geol. 106+31 417 Encina
[23]Spurway, Ernest Hugh San Jose Ed.P.E. 15–6 Theta Delta Chi

Stanbery, William Barber	Los Angeles	Law 152+42	Sigma Alpha Epsilon
[5]Stanford, Leland Ghent	Mayfield	LD 52·53+36	1201 Palo Alto, M-m
Stanley, Camillus Russell	Palo Alto	M.E. 143+16	269 Hawthorne-p
[23]Stanton, Pauline Dickinson	Pasadena	Fr. 97·60+34	Kappa Alpha Theta
Stark, Herbert Spencer	Palo Alto	M.E. 176+28	500 Melville-p
Starkey, Charles Ward	Whittier	Chem. gr.	115 Everett-p
A. B., Stanford, 1921; Engineer, 1922.			
[1]Starkey, William Eugene	Whittier	LD 50+8	Theta Chi
Starkins, Franklin Edward	Ithaca, N.Y.	LD 30·30+42	118 Lincoln
Starks, Dorothy Johanna	Palo Alto	Zool. 136+221	115 Ramona-p
[5]Starr, Walter Augustus, Jr.	Piedmont	LD 20·65+76	Delta Kappa Epsilon
Stauffer, L. Maynard	Pasadena	M.E. 128·53+41	305 Union
[4]Stedman, Lulu May	Los Angeles	LD	Madroño
Steele, Archie Trojan	Salt Lake City, U.	LD 93+74	435 Encina
[5]Steele, Gurdon Donald	Lodi	LD 35–4	10 Sequoia
Steiger, Katherine	Vacaville	Econ. 45·70–5	Alpha Omicron Pi
[12]Steindorf, Stanley Archie	Campbell	Econ.-Law 183+110	216 Encina
A. B., Stanford, 1922.			
[23]Steineke, Max	Brookings, Ore.	Min. gr.	427 Encina
A. B., Stanford, 1921.			
[4]Steinhart, Claire H.	Santa Clara	LD 73·13+10	323 Roble
Steinmetz, Ruth Lolita	Palo Alto	Span. gr.	1021 Ramona-p
A. B., Stanford, 1922.			
[23]Stenberg, Franklyn Richard	Fresno	LD 35–8	219 Ramona-p
[12]Stephens, John Stewart	Los Angeles	LD 34+7	Phi Kappa Psi
[234]Stephens, Philip Harvey	Los Angeles	LD 27+0	Phi Kappa Psi
Stephens, Robert Lee	Portland, Ore.	LD 23–11	32 Encina
[2]Stephenson, Lowell Joseph	Wellston, O.	LD 22–24	Grant Rooms
[5]Sterling, Theodore Kesler	Pasadena	LD 21·97+21	Sigma Alpha Ep.
Stern, Bert Price	Redondo Beach	Chem. 186+70	305 Encina
A. B., Stanford, 1922.			
Stern, Ruth Esther	Portland, Ore.	Econ. 142+193	339 Roble
[4]Sternberg, Selwyn J.	Los Angeles	Educ. ‡	28 Sequoia
Stettheimer, Barbara	Redwood City	Engl. 55+23	Redwood City-rc
[1]Stevens, Blaine L.	Palo Alto	Ent. gr.	926 Cowper-p
A. B., Stanford, 1919.			
[1]Stevens, George Quiller	Puyallup, Wn.	LD	45 Hamilton-p
Stevens, Howard	Rockford, Ill.	LD 86+38	Theta Chi
[1]Stevens, Williston Leslie	Long Beach	LD 10+10	751 Channing-p
Stevenson, Archie McNicol	Portland, Ore.	LD 34–9	136 Encina
[5]Stevenson, Doris Maude	Alhambra	Econ. 9·174+64	Chi Omega
A. B., Stanford, 1922.			

Stevenson, Robert Clifford A. B., Stanford, 1922.	Boise, Ida.	C.E. 59·135+65	234 Encina
Stevenson, William C. A. B., Stanford, 1922.	Boise, Ida.	M.E. 186+106	246 Encina
[34]Steward, Harry, Jr.	Los Angeles	LD 10–2	Phi Kappa Psi
[5]Stewart, Donald Kenneth	Palo Alto	LD 80+17	311 Fulton-p
[5]Stewart, Duncan A. B., Stanford, 1921; Engineer, 1922.	Calgary, Alta., Can.	Chem. gr.	68 Sequoia
[12]Stewart, Elwood Russell	Lodi	LD 20–20	627 Emerson-p
Stewart, Francis Samuel	San Diego	Chem. 2·137+13	520 Encina
Stewart, Holmes Richter	Athens, O.	LD 44+16	706 Cowper-p
[5]Stewart, Hugh Leo Paul	Ambridge, Pa.	C.E. 33–19	541 Encina
[5]Stewart, Ingram Fordyce B. S., Ohio, 1917; A. M., Stanford, 1922.	Athens, O.	Educ. gr.	706 Cowper-p
[234]Stewart, Kenenth Norman	Eureka	Engl.-Jn. 106+48	AlphaSigmaPhi
Stewart, Muriel	Phoenix, Ariz.	Pre-Med. 6·116+118	350 Roble
Stewart, Paul Fisher	San Diego	Econ. 72·92+1	Phi Delta Theta
[12]Stice, Robert Henry A. B., Stanford, 1922.	Red Bluff	Econ. 29·152+41	Phi Kappa Sigma
Stichter, Genevieve Susan	Cupertino	LD 61+77	Cupertino-c
Stikeman, Donald Frank	Santa Cruz	LD 65+29	359 Encina
[1]Stillman, Freeman Linn	Odebolt, Ia.	LD 43–3	344 Encina
[4]Stinson, Jessie Marie	Modesto	LD ‡ 12–5	Roble
[1]Stipp, Thomas F. A. B., Stanford, 1922.	Ukiah	Geol. 185+121	425 Encina
Stockton, Andrew Benton	Grangeville, Ida.	Zool. 144+145	430 Kipling-p
Stoddard, Harvey Charles	Oakland	M.E. ‡ 38+11	118 Encina
[4]Stolle, Helen A. B., Stanford, 1908.	San Francisco	Engl. gr.	628 Waverley-p
[12]Stolz, Harry Phillip A. B., Stanford, 1921.	San Francisco	Min. gr.	Theta Xi
Stone, John Bear	San Francisco	LD 85+37	951 Hamilton-p
[134]Storm, Eugene Max	El Monte	LD 67·27+3	559 Cowper-p
Story, James Wright, Jr.	Amarillo, Tex.	C.E. 71·33+5	627 Gilman-p
[4]Stoughton, Amanda L.	Hartford, Conn.	LD	169 Roble
Stout, Gurn Thompson	Los Angeles	Pre-Med. 123·73+10	660 Wav'l'y-p
[4]Stow, Minerva	Riverside	LD	159 Roble
Strain, Harold Henry	Mayfield	LD 105+60	Box 136, Mayfield-m
[1]Strand, Suerre Bernhard	Benson, Minn.	C.E. sp. 42–14	Alvarado Hall
[124]Straube, Herman William	Los Angeles	LD 38–10	Phi Kappa Sigma
[1]Strauss, Jack Sidney A. B., Stanford, 1921.	San Francisco	Geol. gr.	305 Encina
Stray, George Rose	Campbell	M E. 7·144+182	73 Sequoia

Strickler, Dewey Loyal A. B., Stanford, 1922.	Palo Alto	Pol.S.-Law 4·193+62	440Chan'g-p
Strobel, Grace May	Hanford	LD 8·95+105	27 Alvarado
Strong, Artemas Jacob	Santa Paula	LD 91+64	Sigma Alpha Epsilon
[12]Strong, Edward William	Gresham,Ore.	LD 64+66	55 Sequoia
[23]Stroup,Cranston LeRoy	StanfordUniv.	LD 17+13	Kingscote
[23]Stroup, Russell C.	Stanford Univ.	LD 34+38	Kingscote
Strouse, Carolyn Mathilde	Pasadena	LD 48+68	219 Roble
Strouse, Clarence Abraham, Jr.	Pasadena	Geol. 72–16	215 Encina
Struble, Homer Pearson A. B., Stanford, 1922.	Penryn	Ch.-M. 49·145+261	WWS,MP-mp
Stucky, Mary Ruth	Sparks, Nev.	LD 47+74	175 Roble
Stuhr, Raymond	Chualar	LD 36–18	Kappa Sigma
[1]Sturgeon, James Leonard A. B., Stanford, 1922.	Monrovia	Econ. 81·106+3	431 Encina
[1]Sturgeon, Robert H.	New Haven, Conn.	Law 14–16	Alpha Sigma Phi
[23]Sturges, Edward Keith	San Jose	Zool. 74–52	327 Webster-p
Sturm, Franz	Hoquiam, Wn.	Chem. 147+155	59 Encina
Sudden, Charles Edwin	San Francisco	LD 40–11	Zeta Psi
Sudden, Dorothy	San Mateo	Hist. 45·96+37	Pi Beta Phi
[1]Sullivan, Blanche Gertrude A. B., California, 1920; A. M., Stanford, 1922.	Oakland	Lat. gr.	Madroño
Sullivan, Cletus Stephen A. B., Stanford, 1922.	Santa Clara	P.-Clin. 67·113+100	1068Mad'n,SC
Sullivan, Hazel Henrietta A. B., California, 1921.	Oakland	Ed.G.A. gr.	Madroño
[234]Sullivan, Nellie B. A. B., California, 1917.	Los Angeles	Educ. gr.	515 Waverley
[5]Sullivan, Willard E. A. B., Stanford, 1922.	SouthSanFrancisco	Chem. 182+232	19 Salvatierra
[5]Sult, Donovan Dorr	Guam, M.I.	LD 33–10	11 Salvatierra
[12]Summers, David Selden	Tucson, Ariz.	LD 45·44+15	109 Encina
[23]Summers, Frances Maude	San Jose	Hist. 87·28+12	237 Roble
[23]Summy, Archibald Peers	Long Beach	Econ. ‡ 32–4	528 Churchill
Sutherland, Hugh Sanford	Los Angeles	Engl. 125+63	Kappa Alpha
Sutliff, Howard Donald	Palo Alto	Geol. 50·77–5	634 Hamilton-p
[1]Sutliff, Mildred Mayer	Palo Alto	LD 41+45	634 Hamilton-p
[12]Sutton, John Joseph	San Francisco	LD sp. 5–19	Alvarado Hall
Swabey, Clarence Stanley	Palo Alto	LD 84+35	1055 Cowper-p
Swabey, Marjorie Ruth	Palo Alto	Bot. 87·46+31	1055 Cowper-p
Swacker, Gladys A. B., Stanford, 1922.	Grants Pass, Ore.	Econ. 180+173	163 Roble
Swain, Dorothy Muriel	Stanford Univ.	LD 44+10	10 Cabrillo

[23]Swarts, Clifton Ray — Hermosa Beach — Geol. gr. — Alpha Tau Omega
A. B., Stanford, 1920.

Swartz, Jacob Pierpont — Allentown, Pa. — LD 69–12 — 26 Sequoia

Swayne, William Wager — Stanford Univ. — LD 72+4 — Phi Kappa Psi

Sweeney, John Paul — Phoenix, Ariz. — Med. gr. — 2401 Sacramento, SF-sf
A. B., Stanford, 1920.

Sweeney, Stender Joseph — Los Angeles — Geol. 187+137 — Phi Kappa Sigma
A. B., Stanford, 1922.

[4]Sweet, Milo Allison — Wells, Minn. — LD sp. — 11 Salvatierra

[12]Swett, Harold David — Palo Alto — Econ. 10·116–12 — Sigma Nu

Swing, Horace Everett — San Bernardino — LD 44–6 — 334 Encina

Swithenbank, Grace Martha — San Jose — Ger. gr. — 86 Fox, SJ-sj
A. B., Stanford, 1921, A. M., 1922.

[4]Swoboda, Lois Manly — Palo Alto — LD — 373 Channing-p

Symonds, Henry Gardiner — Hinsdale, Ill. — LD 95+78 — Kappa Sigma

T'aam, Wu — Canton, China — LD 40+11 — Chinese Club

Taff, Katharine Elizabeth — Marfa, Tex. — Engl. 181+111 — 628 Cowper-p
A. B., Stanford, 1922.

Taft, Chester Archibald — Hollywood — LD 6·48+39 — 737 Bryant-p

[5]Tainter, Maurice Lane — Taber, Canada — Med. gr. — S. F. Hospital, SF-sf
A. B., Stanford, 1921.

Takahashi, Matsuta — Montebello — Med. gr. — 1626 Buchanan, SF-sf
A. B., Stanford, 1919.

[23]Takeyama, George Y. — Los Angeles — Med. — 2129 Pine, SF-sf

[13]Talavera, Florencio F. — La Paz, Iloilo, P.I. — Zool. gr. — 705 Cowper-p
A. B., Stanford, 1921.

[1]Talbert, Gordon Benj. — Huntington Beach — LD 3–13 — 459 Hawthorne-p

[5]Talbert, Paul Houston — Ft. Worth Tex. — Econ. 55·101+35 — Sigma Chi

Talboy, Della Irene — Palo Alto — Pre-Med. gr. — 311 Middlefield-p
A. B., Stanford, 1914.

[12]Talmage, Ralph Houston — Redwood City — M.E. 64–10 — 544 Winslow, RC-rc

Tamplin, Constance Almeda — Palo Alto — LD 24·59+43 — 659 Middlefield-p

Tamplin, William Ward — Palo Alto — Min. gr. — 659 Middlefield-p
A. B., Stanford, 1922.

Tappenbeck, Hatto — Noordwyk, Holland — M.E. ‡ 41–7 — 125 Encina

[1]Tarr, Cedric Winship — Sierra Madre — LD 40+21 — Alpha Delta Phi

[5]Tate, Homer Franklin — Palo Alto — C.E. 80·93+51 — Kappa Sigma

[18]Tatlock, Marjorie F. — Stanford Univ. — Sch. Ed. gr. — 5 Santa Ynez
A. B., Michigan, 1908.

Tattersall, K. Lysander — National City — Pre-Clin. 123·50+19 — 211 Union

[1]Taubman, George P., Jr. — Long Beach — Law gr. — Chi Psi
A. B., Occidental, 1919.

[5]Tauzer, Clarence Jaurgen — Santa Rosa — Law 23·177+47 — 13 Encina

[2]Tavernetti, Lena Elvira — Salinas — Pre-N. 150+51 — 325 Roble

[12]Tayler, James Douglas — San Mateo — LD 27+9 — 816 Highland, SM

Taylor, Albert William A. B., Stanford, 1922.	Stanford Univ.	Econ. 180+45	Delta Chi
[23]Taylor, Alvin V., Jr.	Salt Lake City, U.	Geol. 109·26+1	202 Encina
[5]Taylor, Dwight Warren	Los Angeles	Law 117+47	Alpha Tau Omega
[12]Taylor, Everett Ridley	Hollywood	LD 40+0	334 Encina
[124]Taylor, James Ellsworth	Los Angeles	Econ. 97·36+21	139 Encina
[2]Taylor, Mary Sanford M. A., Columbia, 1921.	Stanford Univ.	Educ. gr.	Madroño
[5]Taylor, Morris Peck	Stanford Univ.	Phys. 103·46+65	Kingscote
[5]Taylor, Quimby Whitley A. B., Stanford, 1922.	Montevallo,Mo.	Chem. 22·173+81	Delta Chi
Taylor, Richard Turston A. B., Stanford, 1922.	Los Angeles	Chem. 133·57+16	Phi Kappa Psi
[5]Taylor, Thacher	Los Angeles	LD 25–1	Delta Kappa Epsilon
Teague, Milton McKevett	Santa Paula	LD 45+18	415 Encina
[1]Teall, Robert James B. A., Beloit, 1920.	Madera	Educ. gr.	44 Sequoia
[17]Tedford, Marguerite A. B., Stanford, 1922.	Santa Ana	Ed.G.A. 67·117+61	Pi Beta Phi
Teeguarden, John M.	Richmond, Ind.	LD 43·39–1	612 Waverley-p
[12]Teeson, Walker S. A. B., Stanford, 1922.	Forest River, N.D.	Law gr.	446 Encina
[124]Tegner, Thelma Bodell	Santa Monica	Econ. 47·67+26	Delta Delta Delta
Tell, David Eugene A. B., Stanford, 1922.	Turlock	M.E. sp. 24·192+84	431 Encina
Tempel, William Edward	Winnetka, Ill.	LD 88+70	48 Sequoia
[12]Templeton,Harry Evans	Ft.Worth,Tex.	LD 36–2	Phi Gamma Delta
[1]Templeton, Newton Connor	Hood	LD 25–18	139 Encina
Templeton, Patrick	Flint, Tex.	LD sp 34+7	249 Kipling-p
[12]Templeton, Robert Lyman A. B., Stanford, 1921.	Downey	Law gr.	Union
[12]Templin, Neal Seymour	Burley, Ida.	LD 73+38	66 Sequoia
Tennant, Harold Winslow	Colusa	LD 4·31+32	81 Sequoia
Tennant, Robert Jones	Colusa	LD 87+62	83 Sequoia
Terman, Frederick E. A. B., Stanford, 1920, Engineer, 1922.	Stanford Univ.	E.E. gr.	9 Dolores
Terman, Helen Leclare	Stanford Univ.	LD 87+56	Delta Delta Delta
[1]Test, Marjorie Ardis	Pasadena	LD 41–3	Kappa Alpha Theta
Thain, Alexander A. B., Stanford, 1922.	Mayfield	C.E. 186+36	Mayfield-m
Thayer, Alfred Harwood A. B., Stanford, 1921, Engineer, 1922.	Upland	E.E. gr.	45 Encina
Thayer, William Lyman	Upland	LD 61+56	45 Encina
[12]Thede, Maurice Edwin	Madera	LD 35+2	Sigma Nu

Thomas, Arthur Blake	Salt Lake City, U.	LD 73+29	Phi Kappa Sigma
[3]Thomas, Earle Alling	Pasadena	Geol. 34·88+49	115 Encina
[23]Thomas, Mary Ona A. B., Vassar, 1909.	New Haven,Conn.	Sch. Ed. gr.	1350 Bryant-p
[124]Thomas, Victor Ellsworth	Puente	Phyl. 97–15	Alpha Sigma Phi
[12]Thompson,Florence G.	Sp'gCoulee,Alta.	LD 18·30+44	379 Roble
[5]Thompson, Frances A.	Los Angeles	LD ‡ 14+5	327 Roble
[12]Thompson, George Rowe	Modesto	LD 65–24	326 Encina
[5]Thompson, George W.	Berkeley	Engl. 20·75+3	Alpha Delta Phi
[12]Thompson, Georgia A. B., Stanford, 1922.	Moro, Ore.	Hist. 183+118	Sigma Kappa
Thompson, Harlan Steele	Billings, Mont.	LD 67+29	Sigma Chi
Thompson, Kenneth Joseph	Red Bluff	LD 46+45	340 Embarcadero-p
Thompson, Louis Caryll	Los Angeles	LD 93+72	61 Sequoia
Thomson, William Lyon	Modesto	Phyl. 12·126+68	113 Encina
[23]Thornton, John Calhoun	San Francisco	LD 11–26	201 Encina
Thornton, Richard Scott	Los Angeles	LD 25–24	Delta Kappa Epsilon
[234]Thornton, Walter Daniel	San Jose	Econ. 107+94	243 N. 13th, SJ-sj
Thorp, Chester Arthur A. B., Stanford, 1922.	Santa Cruz	Chem. 96·92+39	358 Encina
[1]Thorup, Harold Iverson	Salinas	LD 4–10	Delta Chi
[12]Thropp, James P. D.	Bakersfield	LD ‡ 12–20	430 Encina
[234]Thygeson, Phillips	Palo Alto	LD 78+73	222 Kingsley-p
[1]Tibbens, Floyd E.	Los Angeles	Geol. sp. 20–4	Zeta Psi
Tiffany, George Oliver	Durango, Colo.	LD 31–16	432 Hawthorne-p
[4]Tilton, Edwin B.	San Diego	Educ. ‡ 7+10	601 Webster
[4]Tilton, Edward Glen	Salt Lake City, U.	LD	9 Sequoia
Timby, Henry Edward	Salt Lake City, P.	LD 41–2	Phi Kappa Sigma
[23]Timpany, Charles Russel	Santa Clara	Chem. 128+112	205 Encina
[4]Tingley, Ella Frances	Waltham, Mass.	LD sp.	Roble
Tisne, Roland David A. B., Stanford, 1922.	San Francisco	M.E. 70·117+10	231 Encina
[1]Titus, Henry Sherley	Riverside	M.E. 45·89+47	21 Encina
Titus, Robert Chadwick	Berkeley	LD 82–16	400 Encina
[5]Tobriner, Mathew Oscar	San Francisco	LD 87+88	23 Encina
[4]Tod, Roy Stewart	Cloverdale	LD	27 Sequoia
Todd, Edwin Thayer	Palo Alto	M.E. 73·80+13	627 Homer
Todd, Harold Elworthy	Sacramento	LD 38–17	Sigma Alpha Epsilon
[12]Todd, Harry Day	Palo Alto	LD 45+31	1650 Waverley-p
[1]Todd, Helen Morton A. B., Washburn, 1899.	Palo Alto	Math. gr.	466 Ruthven-p
[124]Todd, Theodore Walter A. B., Monmouth, 1880.	Palo Alto	Engl. gr.	466 Ruthven-p

[5]Tognazzini, Roland Erwin	San Francisco	LD 71+1	Delta Tau Delta
[23]Toland, Agnes Mildred	Los Angeles	LD 76·29+34	344 Roble
Toland, John De Moss	Los Angeles	LD 41–1	5 Sequoia
Tolman, Frank Bronson	Stanford Univ.	LD 35+7	6 Alvarado
[124]Toner, James Alexander	San Francisco	LD ‡ 28–16	Kappa Sigma
Torrey, Donald Max	Fresno	LD 100+122	247 Encina
[4]Tow, Lillian	Cedar Rapids, Ia.	Educ.	543 Byron-p
[4]Townley, M. Isabel A. B., Stanford, 1921.	Stanford Univ.	Sch. Ed. gr.	21 Cabrillo
[2]Trace, W. Eugene	Santa Barbara	Chem. 42–24	44 Encina
[12]Trachman, Alexander Milton	Santa Rosa	LD 14–21	11 Sequoia
[23]Trago, Eugene N.	Stanford Univ.	Geol. 44·55+29	Theta Delta Chi
[12]Traylor, Virginia	Berkeley	LD 76·24+28	333 Roble
[23]Tremaine, Glendon Louis	Los Angeles	LD 15·30+0	Palo Alto Hotel-p
[23]Tremaine, H. Raymond	Los Angeles	Pol.S. 94·35+36	Palo Alto Hotel-p
[1]Tresidder, Don A. B., Stanford, 1919.	Tipton, Ind.	Med. gr.	1134 Jackson, SF-sf
[234]Triest, Robert Joseph	Los Angeles	LD 32+19	36 Sequoia
[12]Trimble, Sinclair George A. B., Stanford, 1922.	Berkeley	Engl.-Jn. 181+122	245 Encina
[1]Triplett, Carl Eugene	Ceres	Econ. 92–14	27 Sequoia
[3]Trippet, Oscar A., Jr.	Los Angeles	LD 14+8	301 Encina
Tritle, Lloyd Hereford	Phoenix, Ariz.	Econ.-Law 138+66	Delta Chi
[12]Troxel, Elmer Ray	Chico	Law 97+111	340 Melville-p
[5]Trueman, Harold Spencer A. B., Stanford, 1920.	Palo Alto	Med. gr. 2	Commonwealth, SF-sf
Trummer, David Joseph	Hayward	C.E. sp. 106+4	426 Encina
Tucker, Orville Hugh, Jr.	Prescott, Ariz.	LD 96+26	432 Encina
[23]Tull, Floyd William	Palo Alto	LD 51–10	912 Cowper-p
[4]Tupper, Charles Ralph A. B., Stanford, 1913.	San Jose	Educ. gr.	211 S. 8th, SJ-sj
Turk, John Harvey A. B., Stanford, 1922.	Long Beach	Econ. 84·96+1	126 Encina
Turner, Frank Seymour A. B., Stanford, 1921.	San Francisco	Law gr.	310 Union
[12]Turner, Helen Tripp	Adelaida	LD 45+38	280 Roble
Turner, Marion Esther	Adelaida	LD 91+108	Delta Delta Delta
[12]Turnmire, Mont Darrel	Santa Monica	LD 57–22	138 Encina
Turquand, William Glynn	Coronado	LD 51+57	Delta Chi
Tussing, Ford Marlow	Pasadena	Econ. 108+119	Delta Tau Delta
[5]Tuthill, David Bogert	Saratoga	Econ. 109+141	Depta Upsilon
Tuthill, Helen	Portland, Ore.	LD 89+98	Delta Gamma
[1]Tutman, Baldo Joseph	Mountain View	Geol. 59–21	Mountain View-mv

[12]Twigg, Alice M. Mattapan, Mass. Educ. gr. 3 Lasuen
A. M., Boston Univ., 1901.
Tyler, Arthur Robert Pomona C.E. 56·104–6 85 Sequoia
[2]Tyrer, Elliott Golden Redwood City LD Washington, Redw'd C'y-rc
Uebele, Sidney S. Pomona Econ. 81·99+17 238 Encina
A. B., Stanford, 1922.
Uhl, George Donald Los Angeles LD 48·46+8 49 Encina
Ulrich, Katherine S. Minneapolis, Minn. LD 15·57+40 Kappa Kappa Gam.
Umphreys, Meta Vivian Palo Alto Fr. 123+39 342 High-p
[12]Urner, Philip S. Mountain View LD 45+61 231S'nAntonio,MV-mv
Utahara, Frank Sadaji Japan M.E. gr. Japanese Club
A. B., Stanford, 1921, Engineer, 1922.
Vail, Edwin Holloway Palo Alto Econ. 42·144+171 333 Channing-p
A. B., Stanford, 1922.
Valjean, Nelson Hollywood LD 74+24 Alpha Sigma Phi
Van Allen, Frank Carson Visalia LD 4·56+38 41 Encina
[5]Van Bebber, Alvin Wesley Petaluma Econ. 128+21 Alp. Kap. Lambda
[4]Vance, Donald Wm. Whitewater, Wis. Chem. 635 Bryant-p
Van de Carr, Helena Los Angeles Math. 131·50+43 310 Roble
A. B., Stanford, 1922.
[12]Vanderburg, Herbert M. Los Angeles LD 43+1 Zeta Psi
Vanderburgh, Lyall Clyman Madera LD 10·85+57 538 Cowper-p
Van Deusen,Theodore G. Pendleton,Ore. LD 87+31 Alpha Tau Omega
[1]Van Gorden, Evelyne Lorraine Alamo Ed.G.A. 94+12 104 Roble
[12]Van Gundy, Kenneth Warren San Jose LD 44+24 561 Fuller, SJ-sj
Van Gundy, Ross G. San Jose Chem. 76·124+28 561 Fuller, SJ-sj
A. B., Stanford, 1922.
Van Hook, Stuart Guillot Santa Monica LD 46+27 Phi Kappa Psi
Van Horn, Evelyn Adene Denver, Colo. LD 46+87 207 Roble
Van Keuren, Sidney Sutton Culver City C.E. ‡ 28–15 Beta Theta Pi
Van Norden, Linda Palo Alto LD 22·99+142 329 Lincoln-p
[23]Van Patten, Ellsworth I. Pacific Beach LD 75+55 1047 Ramona-p
[12]Van Polen, Herman Palo Alto Engl. gr. 329 Hawthorne-p
A. B., Denver, 1916.
Van Winkle,EdwardH. StoneRidge,N.Y. M.E. gr. 405 Kipling-p
B. S., Harvard, 1920.
[23]Varian, Russell Harrison Halcyon Chem. 61+44 28 Alvarado
[5]Vartanian, Araxie Arpie Turlock Lat. gr. 220 Roble
A. B., Stanford, 1921, A. M., 1922.
[234]Vaudoit, Paul Louis San Luis Obispo Geol. 112·78+9 431 Encina
Vaughan, Bertha Hanford Engl.-Jn. 48·138+44 K.Alp.Theta
A. B., Stanford, 1922.
Vaughan, Howard K. Palo Alto M.E. 6·105+47 1129 Emerson-p
Vaughan, Samuel Edson Santa Barbara M.E. 158+263 88 Sequoia

Vaughn, Gerald Oliver	Mayfield	M.E. 86+91	Mayfield-m
Vaughn, John Orren	Pasadena	LD 96+144	432 Encina
[1]Venator, Louis Cooksey	Los Angeles	Econ. 87+56	Zeta Psi
[4]Verbarg, Dorothy D.	San Francisco	LD 16+25	Roble
Vermilya, Harold Fay	Palo Alto	Econ. 72·57–1	656 Channing-p
[4]Vertrees, Clarence E.	San Jacinto	Educ. 22·	947 Waverley
Vetriolo, Amerigo Augustine	San Jose	Econ. ‡ 41–24	349 N. 17th, SJ-sj
Vial, Robert Duncan	Portland, Ore.	M.E. 130+72	Phi Delta Theta
[234]Vinsonhaler, George R.		LD sp. 28–2	
[4]Visel, Viola Mary	Highwood, Conn.	LD sp.	Roble
Voerge, Maurine Grace	Cleburne, Tex.	Fr. 15·150+146	228 Roble
Vogel, Helen Louise	Fullerton, Neb.	LD 45+60	368 Roble
[1]Vorhes, Marjorie Myla	Los Angeles	LD ‡	369 Roble
[4]Vrooman, Vernon A.	Reno, Nev.	Law	845 Webster-p
[4]Wade, Charles Robert	Marion, Ala.	LD	440 Cowper-p
[5]Wadsworth, Harry Albert	Oakland	Engl. 45·124+31	Delta Chi
Waful, Edward Everett, Jr.	Chicago, Ill.	Hist. 90·64–7	323 Union
[5]Wainscott, Clinton S.	Peru, Ind.	Chem. gr.	229 Union
A. B., Franklin College, 1921.			
[4]Wait, Nellie R.	Sacramento	LD sp.	Roble
Walk, Arthur Richard	Chambersburg, Pa.	Hist. gr.	168 Webster-p
Ph. B., Lafayette, 1917.			
Walker, Earl Fisk	Pullman, Wn.	Chem. gr.	1121 Bryant-p
A. M., Nebraska, 1915.			
Walker, George Hall	Palo Alto	M.E. 128+21	209 Kipling-p
Walker, George Mansfield	Palo Alto	Econ. 183+101	220 Encina
A. B., Stanford, 1922.			
[12]Walker, Lee Fannin	Sebastopol	LD 61–6	233 Encina
[12]Walker, Roland Douglas	Palo Alto	LD	251 Emerson-p
[4]Walker, Ruth S.	Sheridan, Wn.	Hist. gr.	1121 Bryant-p
A. B., Nebraska, 1918.			
Walker, Theodore Sammis	Westwood	M.E. 60·75+57	Chi Psi
[5]Wallace, Davis McOuat	Stanford Univ.	Geol. 10·163+103	Chi Psi
[12]Wallace, Hugh H.	Auburn	LD 60–16	126 Encina
[1]Wallace, Jack Herbert, Jr.	San Francisco	LD 9–11	200 Encina
Wallace, Whittier Worthington	San Jose	Math. gr.	857 S. 2d, SJ-sj
A. B., Stanford, 1921, A. M., 1922.			
[3]Wallis, Lawrence	Stanford Univ	Engl. gr.	25 Salvatierra
A. B., Dartmouth, 1918, M. A., Harvard, 1921.			
Walser, Ruby Mae	Palo Alto	LD 91+15	840 Bryant-p
[5]Walsh, Mona Desmond	Redwood City	Fr. 134+123	Kappa Kappa Gam.
Walter, John Lorenzo	Evanston, Ill.	Pre-Med. ‡	19 Lasuen
Walter, Mildred	Menlo Park	Fr. 15·165+129	Menlo Park-mp
A. B., Stanford, 1922.			

Walter, Russell Lincoln	Chicago, Ill.	LD 92+70	48 Sequoia
Walther, Theodore R.	San Diego	Chem. 130+94	Sigma Nu
[5]Walton, Clarence Eldon	Madison, Me.	Engl. gr.	427 Embarcadero
A. B., Bates College, 1920, A. M., Stanford, 1922.			
[4]Walton, Inez	Long Beach	Engl. gr.	4 Alvarado
B. A., Iowa State Teachers College, 1921.			
[3]Walton, Margaret	Glendale	Educ. gr.	Madroño
A. B., Pomona, 1922.			
[5]Wandling, Harry Francis	Palo Alto	LD ‡ 61–5	334 Homer-p
Ward, Frances Baldwin	Hemet	Span. 181+148	Chi Omega
A. B., Stanford, 1922.			
[12]Ward, Helen McPherson	San Diego	Educ. gr.	211 Melville-p
A. B., Stanford, 1908, A. M., 1922.			
Ward, Katherine Adam	SouthPasadena	Lat. 143+139	347 Roble
[23]Ward, Murray Arthur	Los Angeles	Geol. 72–3	Kingscote
[1]Ward, Neil Henry	Ft. Scott, Kans.	LD 15+9	Encina
Ward, William Henry	Provo, Utah	LD 45+36	404 Everett-p
Wardman, Emily Wringrose	Alhambra	Span. 109·63+5	Delta Gamma
[1]Wardman, Mariquita	Alhambra	Educ. 135·15+1	154 Roble
[4]Wark, Ruby Ingram	Winnipeg, Can.	LD sp.	350 Roble
[1]Warner, Addison W.	Geneva, Ill.	Econ. 50·130+36	Chi Psi
A. B., Stanford, 1922.			
[3]Warner, Alfred	Chicago, Ill.	Econ. sp.	735 Cowper-p
[3]Warner, Hal Fred	Los Angeles	LD ‡ 16–4	Mariposa Hotel-p
Warner, James Prentice	Spokane, Wn.	Law ‡ 36–4	401 Encina
Warnock, Archibald Wilson	Palo Alto	Med. gr.	2229 Webster, SF-sf
A. B., Stanford, 1918.			
Warren,Arthur Fulton	Washington,D.C.	Med. gr.	2631 Clay, SF-sf
A. B., Stanford, 1919.			
[5]Warren, Walter Moore	Stanford Univ.	Engl.-Jn. 113·106+122	55 Sequoia
Wasson, Virginia F.	Watsonville	Engl. 64·80+34	239 Roble
Wassum, Walter Samuel	Napa	C.E. 75·115+18	406 Encina
A. B., Stanford, 1922.			
[2]Watanabe, Manjiro	Japan	Geol. gr.	311 Middlefield-p
Imperial University Tohoku, 1916.			
Waterman, Edward Charles	Palo Alto	M.E. 136+51	567 Lytton-p
Waterman, Joseph Carl	San Jose	LD 95+91	106 Encina
[12]Waterman, Myra Whitney	Palo Alto	Math. 182+217	526 University-p
A. B., Stanford, 1922.			
[234]Watson, Charles Ledlie	Palo Alto	Geol. 28–25	118 Encina
[4]Watson, Lella Beatrice	Santa Ana	Span. gr.	Madroñe
A. M., University of Kansas, 1915.			
Watson, Margaret Eva	Palo Alto	LD 39+29	1400 Webster-p
Watt, Geraldine E.	San Francisco	LD 83+64	Pi Beta Phi

[5]Wattenberger,Norton Edward	Palo Alto	LD 45–4	666 Everett-p
[5]Watters, Hallie A. B., Stanford, 1922.	Palo Alto	Greek 183+338	633 Channing-p
Watters, Millard Norman	Los Angeles	Pol.S. 26·141+4	329 Encina
Watterson, Jerome Wilfred	Bishop	LD 89+38	436 Encina
Watterson, Whittier Caldwell	Bishop	LD 88+35	436 Encina
[1]Wattis, Paul Lyman	Ogden, Utah	LD ‡ 5–15	475 Hamilton-p
[5]Wayland, Charles Rucker A. B., Stanford, 1922.	San Jose	Law 48·170+3	1319 Tasso-p
[4]Wear, Margaret	Fresno	Educ. 90·30+53	202 Roble
[5]Weaver, Clarence E.	Halcyon	Phys. 34·123+57	College Ter., M
[5]Webb, De Witt C.	Salt Lake City, Utah	LD 74+37	206 Encina
[1]Webb, Edward Glenn	Lindsay	LD 8–1	423 Encina
Webb, Laura Sherman	Brawley	LD 44+67	262 Roble
Webb, Robert Pegram	Mare Island	LD ‡ 39+34	636 Gilman-p
Webster, Dorothy Gertrude A. B., Stanford, 1921.	Paso Robles	Law gr.	264 Roble
Webster, Elwyn Jerome A. B., Stanford, 1922.	Riverside	Econ. 91·91+81	446 Encina
[23]Wegner, Walter William A. B., Stanford, 1922.	Sacramento	C.E. 7·177+163	29 Encina
[23]Weichselfelder, Marguerite	Palo Alto	LD 6·70+86	456 Ruthven-p
[5]Weightman, John W.	Los Angeles	Econ. ‡ 23–18	303 Union
Weil, Conrad, Jr.	Redwood City	LD 61–2	208 Encina
[1]Weil, Theodore Mitchell	Redwood City	LD 21–21	202 Encina
Weiler, Ralph Jacob A. B., Stanford, 1922.	Los Angeles	Econ. 127·53+10	354 Union
[1]Weingand, Claude F.	Los Angeles	Law ‡ 3–11	Alpha Sigma Phi
[3]Weirick, Josephine	Hollywood	LD ‡ 14–5	361 Roble
Weisel, Lloyd Henry A. B., Stanford, 1922.	Galesburg, Ill.	Econ. 114·68+8	237 Encina
Weiss, Marie J.	Stockton	LD 46+92	229 Roble
[34]Weissenberg,Chas.	Anezaltenango,Guat.	LD 14+1	136 Encina
[2]Welch, Raymond Marvin	Alta Loma	Geol. 106+75	Beta Theta Pi
Welch, Sidney Hall	Coronado	LD 23–25	Delta Chi
[23]Weller, Ruth Katherine	Redwood City	LD 29–9	502 Edgewood, RC-rc
[3]Wellington, Barbara Anne	Sacramento	LD 15+4	225 Roble
Wellman, Adele Lucile	San Francisco	LD 36–12	278 Roble
Wells, Clinton Fisk A. B., Stanford, 1920, A. M., 1920.	San Jose	Econ. gr.	662 Vendome, SJ-sj
Wells, Earl Wilson A. B., California, 1919.	Los Angeles	Med. gr.	2216 Pine, SF-sf
[23]Wells, Edward Ebenezer	Oakland	LD ‡ 32+12	10 Cabrillo

[5]Wells, Edwin Adams Stanford Univ. Law gr. Kingscote
A. B., Stanford, 1921.
[5]Wells, Harrington Stockton Zool. 152+50 559 Cowper
Wells, Herbert Hamakuapoko, Maui, T.H. Anat. gr. 31 Sequoia
A. B., Stanford, 1921.
Wells, Loton Dutreux San Francisco LD 85+89 337 Encina
[124]Wells, Mildred In de B. Stanford Univ. Engl. 78·103+72 Kingscote
A. B., Stanford, 1922.
Welsh, Norris Lawrence Los Angeles Econ. 157+61 Alpha Sigma Phi
[4]Welty, Howard O. Oakland Educ. 223 Union
[1]Wendt, Alvin William Pasadena Law gr. Sigma Alpha Epsilon
A. B., Southern California, 1915; J. D., Stanford, 1922.
[5]Wenrick, Howard Pulver Palo Alto LD 51+15 1040 Emerson-p
[24]Wenzel, Robert Nicolas Palo Alto Chem. gr. 345 Lincoln-p
A. B., Stanford, 1916, Engineer, 1917.
Wepfer, Alfred Vincent Berkeley Med. gr. 2424 Virginia, B-b
B. S., California, 1905.
Wernli, John George Los Angeles C.E. 10·175+103 Theta Xi
A. B., Stanford, 1922.
[1]West, Edmund Cary Santa Ana Engl.-Jn. 58–6 757 Homer-p
West, Franklin Gordon Stanford Univ. Law gr. 429 Encina
A. B., Stanford, 1921.
West, Thomas Hume Santa Ana LD 53+18 84 Sequoia
West, William Roscoe Simla, Colo. Educ. gr. Los Altos
A. B., Colorado State Teachers' College, 1913, A. M., Stanford, 1922.
West, William Valentine Chico M.E. 45·130+166 AlphaK.Lambda
A. B., Stanford, 1922.
Weston, Anita Weltha Palo Alto LD 55+14 209 Homer-p
[5]Weston, Ralph Emerson Stanford Univ. Math. 160+178 248 Encina
Whealton, Rowland Gardiner LongBeach Min. gr. Kappa Alpha
A. B., Stanford, 1920, Engineer, 1922.
Wheat, Gilbert Collins Los Angeles LD 47+42 17 Alvarado
[4]Wheate, Lawrence S. Camp Kearney LD Base Hospital-p
[5]Wheaton, Frederick Sherwood SanDiego Econ. 27·88+29 Phi Delta Theta
[12]Wheeler, Horace Edward Pueblo, Colo. Chem. gr. 542 Encina
A. B., Stanford, 1921.
[1]Wheeler, Jo Bryant Portland, Ore. LD 25–12 426 Ramona
[12]Wheeler, Katharine S. Portland, Ore. LD 20–30 146 Roble
[124]Wheeler, Oliver Percival Berkeley Econ. gr. 735 Homer-p
A. B., Stanford, 1920.
Whisler, Hugh Levan Portland, Ore. LD 41+31 Hotel Palo Alto
[124]Whitaker, Douglas M. Stanford Univ. LD 28+29 9 Alvarado
Whitaker, Ruth Merritt Stanford Univ. Fr. 115+64 9 Alvarado
Whitcomb, Thayer W. Fessenden, N.D. LD 64·48+59 315 Encina

[5]White, Albert Cosad	Oakland	LD 10·60+54	138 Encina
White, Allen Cromwell	Camp Lewis, Wn.	LD 45+59	112 Encina
White, Charles Benjamin	Pasadena	LD 91+36	39 Encina
White, Harold Le Roy	Bakersfield	LD 45+39	328 Encina
White, Horace Winfred Beck A. B., Stanford, 1922.	Fresno	Econ. 90·92+95	350 Encina
[4]White, Hubert B. A. B., Iowa State Teachers' College, 1921.	Cedar Falls, Ia.	Educ. gr.	Sequoia
White, Margaret Emily	Palo Alto	Zool. 122+56	318 Roble
[4]White, Mariam Arnold	Bakersfield	Educ. ‡	1121 Bryant-p
White, Robert Jenkins	Los Angeles	LD 41+7	Alpha Tau Omega
[4]White, Sarah Elizabeth	Bakersfield	LD	1121 Bryant-p
Whiteford, William K.	Los Angeles	Econ. 100+9	Alpha Tau Omega
[2]Whitehouse, Stuart W.	Walla Walla, Wn.	Law 98·27+18	231 Cowper-p
[1]Whitmer, Francis Eugene	Palo Alto	Econ. 54+49	334 Homer-p
Whitmore, Max Montgomery	Nephi, Utah	LD 45+19	Kappa Alpha
Whitney, Helen Mason	Berkeley	LD 90+55	Alpha Phi
Whittemore, James Absalom	Palo Alto	Geol. 109+6	253 University-p
[2]Whittemore, John R., Jr.	Santa Barbara	Span. 94–7	Phi Delta Theta
[13]Whittier, Donald W.	Beverly Hills	LD 25–19	Alpha Delta Phi
[12]Wiberg, Harry Austin	Phoenix, Ariz.	LD 33–12	Theta Delta Chi
Widaman, Perry Davisson	Los Angeles	LD 60+22	Alpha Delta Phi
Wiel, Robert Lewis A. B., Stanford, 1922.	San Francisco	Hist. 45·135+39	Kingscote
[5]Wilbur, Blake Colburn A. B., Stanford, 1922.	Stanford Univ.	Phyl.-Med. 198+293	62 Sequoia
[5]Wilbur, Dwight Locke	Stanford Univ.	Phyl. 128+168	57 Sequoia
[5]Wilbur, Edna May A. B., Stanford, 1921.	San Francisco	Fr. gr.	147 Emerson
Wilbur, Paul Curtis	San Francisco	LD 112+126	355 Encina
Wilcox, Chester Arthur	Pasadena	M.E. 63·139+2	Chi Psi
[1]Wilcox, Lucy Marion	Los Angeles	Hist. 81·89+55	147 Emerson
[3]Wilder, Floyd Wm.	Los Angeles	Econ. 29–18	840 Bryant
Wildman, Mary F. A. B., Stanford, 1922.	Stanford Univ.	Econ. 8·181+279	321 Roble
Wiles, George Webster	San Francisco	C.E. 4·105+91	307 Union
[23]Wiley, Elton H.	San Jose	Econ. sp. 14–3	549 Coe, SJ-sj
[15]Wilhelmson, Carl	San Francisco	Engl.-Jn. sp. 90+98	46 Encina
[12]Wilke, John Howard A. B., Stanford, 1922.	Arcadia	C.E. 26·161+12	265 Coleridge-p
[34]Wilkie, Charles Daniels	Wheeling, W.Va.	Econ. 78–10	
[3]Wilkonson, Myrtle A. B., Oklahoma, 1918.	Sapulpa, Okla.	Math. gr.	Delta Delta Delta

[4]Willett, Orville Roberts — Berkeley — Educ. gr. — 211 Union
A. M., Chicago, 1919.
Williams, Alan Haynes — Santa Cruz — M.E. 181+143 — 329 Union
A. B., Stanford, 1922.
Williams, Arthur Lionel — Seattle, Wn. — E.E. gr. — 519 Encina
A. B., Stanford, 1921, Engineer, 1922.
Williams, Dorothy Evelyn — Shanghai, China — LD 44+8 — 260 Roble
Williams, Emeline Helmbold — Palo Alto — LD 39+48 — 200 Kingsley-p
[23]Williams, Eva Mae — Redlands — Engl. 52·49+33 — 205 Roble
[5]Williams, Frances H. — Lewiston, Ida. — Hist.-Jn. 2·109+113 — 353 Roble
[5]Williams, Gerald Arthur — Calexico — LD 58–6 — 50 Encina
Williams, Helen Edith — San Diego — Econ. 51·129+96 — 156 Roble
A. B., Stanford, 1922.
Williams, John Austin — Hollywood — LD 19+4 — Delta Kappa Epsilon
Williams, John Sheldon, Jr. — San Jose — LD 48+45 — 430 Lake House, SJ-sj
[12]Williams, John Wesley, Jr. — Hollywood — M.E. 120–26 — Phi Gamma Delta
[4]Williams, Kathryn Jarman — San Jose — Educ. 107·60+49 — Roble
[1]Williams, Richard Carvel — San Francisco — LD 8–18 — 400 DuBoce, SF-sf
[4]Williams, Texa Williams — Long Beach — Hist. ‡ — Roble
Williams, Thomas Bertram — San Gabriel — Med. gr. — 2718 California, SF-sf
A. B., Stanford, 1921.
Williams, William Lloyd — Oakland — M.E. 46·126+57 — Theta Xi
Williamson, Roy Franklin — Sebastopol — Econ.-Law 120+53 — Delta Kap. Ep.
Williard, Henry Ormiston — San Jose — Hist. 30·87–3 — 64 Sequoia
[3]Willibrand, Wm. Anthony — Menlo Park — Fr gr. — W. W. Sch., M.P-mp
A. B., Warrensburg (Mo.) State Teachers' College, 1919; A. M., Chicago, 1921.
[4]Willis, Caroline — Redlands — LD — 184 Roble
Willis, Frances Elizabeth — Redlands — Pol.S. gr. — Madroño
A. B., Stanford, 1920.
Willis, Henry James — Redlands — LD 39+24 — 20 Lasuen
Willis, Henry Paul — Wichita, Kans. — LD 48+64 — 55 Sequoia
Willis, Robin — Stanford Univ. — Geol. gr. — 425 Encina
A. B., Stanford, 1920, A. M., 1922.
[34]Williston, Preston E. — Gridley — LD sp. 14+22
Willits, John Metz — Mayfield — LD 53+87 — 345 Yale, M-Box 684, p
[4]Willoughby, Raymond R. — Sheffield, Mass. — Educ. gr. — 11 Sequoia
B. S., Massachusetts Agricultural College, 1919.
[4]Wilson, David Elmer — Phoenix, Ariz. — Law ‡ — 581 Forest-p
Wilson, Dorothy Whedon — Los Angeles — Engl. 134+41 — Chi Omega
[5]Wilson, Ernest Archibald — Hollister — Law 10·166+30 — 527 Encina
Wilson, Ernest Howard — Palo Alto — LD 28–23 — Theta Delta Chi
Wilson, George Howard — Los Angeles — LD 92+93 — Alpha Delta Phi
Wilson, Gerard George — San Jose — Chem. 180+89 — 419 Encina
A. B., Stanford, 1922.
[4]Wilson, Ira Carrell — Ashland, Ore. — Educ. gr. — 52 Sequoia
B. S., Peabody College for Teachers, 1918.

Wilson, James Hood	Carmel	LD 57–18	310 Encina
[1]Wilson, Leo Klays	Davis	Pre-Med. gr.	Kappa Sigma
A. B., California, 1921.			
[5]Wilson, Leslie Edwin	Helena, Mont.	Law 135·91+7	Encina Gym.
A. B., Stanford, 1922.			
[1]Wilson, Martel D.	Stockton	LD 21–21	249 Kipling-p
Wilson, Wendell Rogers	Vallejo	C.E. 116+72	36 Sequoia
Wimmer, Shirley D.	Salt Lake City,U.	Med. gr.	Phi Delta Theta
A. B., Stanford, 1922.			
[5]Windish, Mollie	New York, N.Y.	Engl. 157+94	281 Roble
[3]Wingard, Glenn Adrian	Orange Cove	M.E. 9·160+138	Theta Xi
Wingood, Norma E.	Santa Ana	Med. gr.	1534 Sutter, SF-sf
A. B., Stanford, 1921.			
[1]Winklebleck, Samuel H.	Modesto	Econ. 84–9	Delta Tau Delta
[13]Winkler, Kemp Julius	Los Angeles	Econ. ‡ 14–1	39 Encina
[5]Winn, Montgomery E.	Warsaw, Ky.	Law 18·106+63	Alpha Sigma Phi
[1]Winship, Albert Offutt	Phoenix, Ariz.	Econ. 65–2	Delta Chi
[1]Winsor, Lucy Burton	Providence, R.I.	Econ. gr.	Madroño
A. B., Vassar, 1919; A. M., Stanford, 1921.			
[234]Winter, Arthur F.	Chinook, Mont.	LD sp. 8·23+20	536 Hamilton
[1]Wirth, George Spencer	Alhambra	LD sp. 8–9	605 Chapman, SJ-sj
[13]Wise, Chester William	Twin Falls,Ida.	Econ. 0–13	52 Encina
[5]Wise, Edith Patterson	San Jose	Med. gr.	1906 Webster, SF–sf
A. B., Stanford, 1919.			
Wisely, Horace Rose	Terr Haute, Ind.	LD 37+41	Phi Kappa Psi
Wisnom, Robert Freeman	San Mateo	Econ. 147+151	Chi Psi
[5]Witherbee, Donald	Los Angeles	Econ. sp. 121+11	Kappa Sigma
[234]Witherow, Sidney Daniel	Rivera	LD 32+20	Sigma Chi
Wittenberg,Howard E.	Terre Haute,Ind.	LD 72+94	Phi Kappa Psi
Wocker, Hermine	San Francisco	LD 41+50	373 Roble
[5]Wocker, Mary Isabel	San Francisco	Chem. 44–14	Alpha Phi
[5]Woerner, S. Edith	Palo Alto	Hist. 150+10	453 Hawthorne-p
[12]Wohlberg, Lester	Waco, Tex.	Econ. 90·90+99	Alvarado Hall
A. B., Stanford, 1922.			
Wohlford, Burnet Coleman	Escondido	Law gr.	14 Union
A. B., Stanford, 1920; J. D., 1922.			
Wolf, Paul Theodore	San Francisco	LD 39+24	200 Encina
Wolfe, Daniel March	San Jose	Chem. gr.	48 S. 4th, SJ-sj
A. B., Western Reserve University, 1918.			
[4]Wolfe, Franklin D., Jr.	Fresno	LD	63 Sequoia
Wolfe, Zelda Nadine	Oakland	LD 53–16	Delta Delta Delta
[5]Wong, Hung Chau	San Francisco	LD 38+0	Chinese Club
Wood, Carlton Ball	Sonora	LD 85+21	421 Encina
[2]Wood, D. Edmund	Stanford Univ.	Econ. 84–5	Phi Kappa Psi

[4]Wood, Elsie Maude A. B., Stanford, 1901.	San Jose	Pol.S. gr.	236 Roble
[12]Wood, Francis Hugh	Spencer, Ida.	LD 14–7	Phi Kappa Psi
[4]Wood, Grace Mary A. B., Stanford, 1917.	Mayfield	Fr. gr.	Mayfield-m
Wood, Granville Newman A. B., Stanford, 1920.	Mayfield	Med. gr.	Mayfield-m
[5]Wood, Margaret A. B., Stanford, 1920.	Los Angeles	Sch. Ed. gr.	Pi Beta Phi
[1]Wood, Melville Alfred	Merced	Hist. 104–23	Theta Delta Chi
[3]Wood, Virginia A. B., Stanford, 1920.	Los Angeles	Sch. Ed. gr.	Pi Beta Phi
[12]Woodhead, Anne Elisabeth	Los Angeles	Econ. 45·74+15	Alpha Phi
[12]Woodhead, Dorothy P.	Los Angeles	Phil. 113+87	Alpha Phi
Woodruff, Virginia May	SaltLakeCity, U.	Engl. 135+17	Gamma Phi Beta
[4]Woodward, May Anita	San Pedro	LD sp.	30 N. 8th, SJ-sj
Woodward, Tyler Francis	Los Angeles	LD 75+7	Delta Kappa Epsilon
Woolf, Henriette K.	Greeley, Colo.	LD 46+59	171 Roble
Wooster, Hiram Ferris A. B., Stanford, 1922.	Vancouver, B.C.	C.E. 183+39	Phi Delta Theta
Worden, Norton Earl	Glendive, Mont.	LD 14–18	544 Byron-p
Working, Paul Drury	Wilsall, Mont.	LD 60–10	550 Addison-p
[1]Worley, Claude Eugene	McAllen, Tex.	LD 6–12	356 Kingsley
[12]Worthington, Gerald C. A. B., Stanford, 1922.	San Francisco	Min. gr.	309 Encina
Wrenn, Heaton Luse A. B., Stanford, 1922.	Burlingame	Law gr.	309 Union
[5]Wright, Andrew Curtis	Palo Alto	LD 61+50	765 Channing-p
[23]Wright, George Frederic	Centerville	M.E. 15–10	235 Union
[3]Wright, Glenna Alice	Santa Ana	Hist. 69·45+13	Roble
[5]Wright, Harold Haven	Stanford Univ.	Geol. 59·133+63	221 Encina
Wright, James Chalmers	Riverside	LD 59+32	503 Encina
[1]Wright, Jason Kingsley	Fresno	LD 14–13	557 Hamilton-p
Wright, Julian Chapman	Hollywood	LD 38+2	Palo Alto Hotel-p
Wright, Milton Edgar	San Jose	Law 184+97	217 N. 1st, SJ-sj
[5]Wright, Raymond Orville	Stanford Univ.	Law ‡ 15–10	292 Union
Wright, Robert Edward	Manila, P.I.	LD 38+6	221 Encina
Wright, Robert Franklin	San Jose	M.E. 137+47	240 S. 13th, SJ-sj
Wright, Russell Berkeley A. B., Stanford, 1922.	Manila, P.I.	M.E. 189+26	314 Union
Wright, Samuel Vaughan	San Luis Obispo	LD 57+99	421 Oberlin, M-m
Wright, William Beatty	San Francisco	LD 46+0	Phi Kappa Sigma
Wright, William Edward	Stockton	LD 90+110	Theta Chi
Wright, William Lawton	Omaha, Neb.	LD 46+26	Kappa Alpha

[12]Wright, Wm. Quinby, Jr.	Sausalito	LD 32+48	25 Sequoia
[12]Wuhrman, Henry Ernest	San Jose	LD 33+22	100 S. 11th, SJ-sj
Wyatt, Bradley William	Long Beach	C.E. 7·123+52	Theta Xi
van Wyck,Cecil v. A.	The Hague,Holland	M.E. 104–4	Delta Upsilon
Wyckoff, Harry Wilson	San Francisco	Econ. gr.	Phi Delta Theta
A. B., Stanford, 1921.			
[1]Wyman, Arthur R.	Santa Barbara	LD 18·13+5	231 Cowper-p
[12]Wyman, Jennie Benson	Auckland, N.Z.	Educ. gr.	1035 Bryant
B. A., M. S., University of New Zealand; A. M., Stanford, 1921.			
Wysong, Coleman Gay	Assumption, Ill.	Educ. 99·49+44	324 Emerson-p
Yamasaki, Seizi	Kagoshima, Japan	LD 68+38	Japanese Club
[12]Yost, Russell Thorpe	Stockton	LD 77+68	232 Encina
Young, Blanche	Weaverville	Engl. 185+60	232 Roble
A. B., Stanford, 1922.			
[5]Young, Charles Ainslee	Coronado	LD 62+4	72 Sequoia
[1]Young, Donald McKenzie	San Francisco	LD 34–9	300 Leland
[23]Young, Dwight Dunham	Fresno	Chem. 129+27	Alpha Sigma Phi
Young, Forest Herbert	Billings, Mont.	C.E. sp. 18–17	444 Encina
[3]Young, Garth Lylle	Portland, Ore.	M.E. gr.	500 Melville-p
A. B., Stanford, 1921.			
[4]Young, Henry Neal	Etna Mills	Educ. gr.	306 Union
B. S., California, 1911.			
[6]Young, Mary Frances	Los Angeles	Ger. 107·55+17	282 Roble
Young, Sarah Adele	Los Angeles	Hist. gr.	161 Roble
A. B., Occidental, 1919.			
Young, Ward W.	Oakland	LD sp. 37+0	204 Encina
Young, Wilmer Wheelon	Oakland	M.E. 138+35	204 Encina
[4]Younkin, Daniel Garfield	Xenia, Ohio	Educ.	Alexandria Hotel-p
Younglove, Howard Phillips	Riverside	Geol. 136+21	Beta Theta Pi
Younglove, Margaret Jean	Riverside	Hist. 97·87+47	Pi Beta Phi
A. B., Stanford, 1922.			
Yue, Nga Yau	Canton, China	Econ. 15·165+44	Chinese Club
A. B., Stanford, 1922.			
[4]Zabel, Amanda Louise	Valley City,N.D.	Engl. gr.	217 Roble
A. B., North Dakota, 1916.			
[12]Zandmer, S. Myron	Portland, Ore.	Min. gr.	427 Encina
A. B., Stanford, 1921.			
[5]Zane, Margaret Coleman	Redwood City	Econ. 117–4	Kappa Alpha Theta
Zane, Simeon Lessard	Eureka	LD 47–7	Phi Delta Theta
Zeh, Henry Phillip	Stanford Univ.	Chem. 180+87	318 Encina
A. B., Stanford, 1922.			
Zelhart, George Edgar	Selma	M.E. ‡ 31–6	227 Encina
[1]Zieber, Roecoe Lee	Palo Alto	LD 13–15	635 Bryant-p
Ziller, Madeline Veronica	Cloverdale	LD 75–4	238 Roble
[13]Zschokke, Elsbeth Ethelwyn	Palo Alto	LD 36+0	526 Forest-p

SUMMARIES

OFFICERS

Trustees		15
Academic Council—rank of		
Professor	97	
Associate Professor	43	
Assistant Professor	27	
Total		167
Other Teaching and Administrative Officers—rank of		
Emeritus Professor	8	
Clinical Professor	9	
Associate Clinical Professor	6	
Assistant Professor	19	
Assistant Clinical Professor	16	
Lecturer	23	
Instructor	55	
Clinical Instructor	29	
Investigator	4	
Administrative Officer	26	
Total		195
Assistants		
Instruction	65	
Administration	72	
Medical School	48	
Library	31	
Technical	46	
Total		262
Grand Total		639

STUDENTS

	Autumn	Winter	Spring	Summer	For The Year
Graduates	365	373	387	304	646
Undergraduates	2289	2183	1953	518	2681
Special Students	65	65	72	92	132
Totals	2719	2621	2412	914	3459

By Major Subjects

	Graduate	Undergraduate	Special	Total
Anatomy	3	—	—	3
Applied Mathematics	—	1	—	1
Bacteriology and Experimental Pathology	2	3	—	5
Botany	8	10	—	18
Chemistry	38	99	3	140
Economics	27	344	14	385
Education—School of	23	2	1	227
—Division of	116	51	—	
—Graphic Art	3	15	—	
—Physical Education	11	5	—	
Engineering—Civil	6	66	5	77
—Electrical	15	—	—	15
—Mechanical	10	142	4	156
English	41	87	3	131
Geology	21	137	2	160
Germanic Languages	3	1	—	4
Greek	4	2	—	6
History	32	65	1	98
Latin	12	7	—	19
Law	65	‡145	4	214
Lower Division	—	1299	94	1393
Mathematics	8	14	—	22
Medical Department	3	—	—	3
Medicine	102	†36	—	138
Mining and Metallurgy	27	—	—	27
Nursing	2	—	—	2
Pharmacology	1	—	—	1
Philosophy	1	13	—	14
Physics	3	3	—	6
Physiology	3	29	—	32
Political Science	9	30	—	39
Pre-Clinical	—	16	—	16
Pre-Medical	7	20	—	27
Pre-Nursing	—	4	—	4
Psychology	2	12	—	14
Romanic Languages—French	13	37	—	85
—Spanish	13	22	—	
Zoology	4	25	—	45
—Entomology	8	7	1	

† Also registered as Physiology majors, 13; as Bacteriology majors, 1; as Chemistry majors, 2; as Zoology majors, 3; as Pre-Clinical majors, 16.

‡ Also registered as Economics majors, 15; as History majors, 4; as Political Science majors, 13; as Education majors, 1.

By Residence—For the Year

California	2497	Wyoming	11	Hawaii	13
Oregon	106	New Mexico	10	China	9
Washington	86	North Dakota	10	Philippine Islands	9
Idaho	56	Connecticut	8	South America	6
Arizona	55	Massachusetts	8	Holland	5
Colorado	53	New Jersey	7	Central America	4
Illinois	47	Washington, D. C.	5	Alaska	3
Utah	44	Florida	4	England	3
Montana	36	Kentucky	4	Mexico	3
Texas	35	Mississippi	4	Africa	2
New York	29	Maine	3	Belgium	2
Missouri	23	New Hampshire	3	India	2
Minnesota	22	Tennessee	3	Bohemia	1
Ohio	22	Alabama	2	Denmark	1
Iowa	21	Louisiana	2	Greece	1
Pennsylvania	21	Rhode Island	2	Guam	1
Nebraska	18	West Virginia	2	Ireland	1
Oklahoma	18	Delaware	1	Italy	1
Kansas	17	Maryland	1	New Zealand	1
Michigan	16	South Carolina	1	Russia	1
Indiana	15	South Dakota	1	Sweden	1
Nevada	14	Canada	20		
Wisconsin	12	Japan	14	Total	3459

ALUMNI ASSOCIATION

[Organized June 15, 1892]

CONSTITUTION

(As amended, 1908-21)

IN order to promote the interests of the University, to secure unity among its graduates, and to foster an attachment to our *Alma Mater*, we do hereby constitute ourselves an association to be known as the Alumni Association of the Leland Stanford Junior University.

I. MEMBERSHIP

1. All persons who have received a degree from the Stanford University are members of this Association.

2. All former students of Stanford University are associate members of this Association and shall have all rights and privileges of membership.

3. All members of the Faculty are honorary members of this Association.

II. OFFICERS

1. The officers of this Association shall be: (1) a President; (2) a Vice-President; (3) a Secretary-Treasurer; (4) an Executive Committee consisting of the Secretary-Treasurer and four other elected members, one of whom shall be designated as Chairman; and (5) an Advisory Board, consisting of the President, the Secretary-Treasurer, one representative elected by the graduating class for the term of one year, and nine elected members who shall be graduates of five years' standing, and who shall be elected for three-year terms. . . . . The Advisory Board shall elect its President and Secretary.

2. All other officers shall serve for one year or until their successors are elected.

III. DUTIES OF OFFICERS

1. It shall be the duty of the President to preside at all business meetings of the Association, to deliver the President's address on Alumni Day, and to perform such other duties as usually belong to his office.

2. It shall be the duty of the Vice-President to preside in the absence of the President and to perform the other duties belonging to his office.

3. It shall be the duty of the Secretary-Treasurer to keep accurate

minutes of the meetings of the Association and to act as Secretary of the Executive Committee, of which he shall be a member.

4. It shall also be the duty of the Secretary-Treasurer to have charge of the collection and disbursement of the funds of the Association.

5. The Secretary-Treasurer shall be allowed ten per cent of all dues or assessments collected, as compensation for his services.

6. It shall be the duty of the Executive Committee to arrange for the programme to be presented on Alumni Day; or any programme for other public occasions; to regulate the finances of the Association; to perform such other duties as may be imposed upon it; and to attend to all business of the Association not otherwise provided for.

7. It shall be the duty of the Advisory Board, when deemed advisable, to consult alumni, undergraduates, faculty, and trustees, and to make recommendations regarding the welfare of the University and of the Alumni Association.

IV. COMMITTEES

1. The President shall be ex-officio a member of all committees.

2. At each annual business meeting the President shall appoint a committee of two persons to audit the Treasurer's accounts.

3. A Regional Director of the Alumni Association shall be appointed annually in communities which the Advisory Board of the Alumni Association shall designate. The purpose of the district organization shall be to develop local interest in respect to the undertakings of the University and the policies of the Association. The Regional Director shall be selected and shall hold office in the manner prescribed from time to time by the Advisory Board of the Alumni Association. The duties, privileges, and jurisdiction of the Regional Director shall be defined from time to time by the Advisory Board of the Alumni Association.

V. ELECTIONS

1. The February issue of the *Stanford Illustrated Review* shall give notice of the annual nomination and election of officers of this Association. Said notice shall contain the names of the incumbent officers and shall indicate the hold-over members of the Advisory Board, and shall contain in full the provisions of this Constitution relating to nominations and elections.

2. Nominations in writing, signed by at least twenty members, shall be required for any nomination. Nominations shall be forwarded to the Secretary-Treasurer between the first day of February and the first day of April of each year. On or before the fifteenth day of April of each year, the Secretary-Treasurer shall mail to every member

of this Association whose dues for the current year have been paid, an official ballot containing all the nominations, with the addresses of the nominees and the number of proposers of each, and said ballot shall be published in the April issue of the *Stanford Illustrated Review,* provided, however, that where no contests occur, the Secretary-Treasurer shall be empowered to cast the ballot.

3. Officers shall be elected at an annual election to be held at Stanford University on Alumni Day, between the hours of nine o'clock a. m. and twelve o'clock noon. The Executive Committee shall have charge of the election. The elector may cast a written ballot in person, or by mail addressed to the Secretary-Treasurer, marked "Ballot" and disclosing the sender's name, and enclosing a ballot in a plain envelope. Ballots so received shall be opened and cast only during the hours of election. The respective candidates receiving the highest number of votes shall be declared elected. A tie vote shall be decided by lot.

4. No one whose annual dues are in arrears for the current year shall be entitled to vote or to hold office.

VI. DUES

The dues of the Association shall be $1.25 per year for each member thereof, which amount shall include a subscription to the *Stanford Illustrated Review.*

Provided, however, that all members who, prior to May, 1908, have paid $5 shall be exempted from further dues.

VII. MEETINGS

Meetings of the Association may be called by the President or by petition of twenty members, said meetings to be held at Stanford University.

VIII. AMENDMENTS

Any proposition to alter or amend these Articles of Association must be proposed in writing, signed by twenty members, and submitted to the members by mail in printed form by the Secretary-Treasurer, and voted upon in the same manner as are nominations for officers, and adopted by a majority vote.

OFFICERS OF THE ASSOCIATION, 1921-22

President—FREDERICK HALL FOWLER, '05.

Vice-President—JESSIE MCGILVRAY TREAT, '07.

Secretary-Treasurer—JOHN EZRA MCDOWELL, '00.

Executive Committee—CARL HUGH BEAL, '13, Chairman; SAMUEL ROBERT DOWNING, '07; FREDERICK HALL FOWLER, '05; JOHN EZRA MCDOWELL, '00; JOHN KELLY NORTON, '16; GEORGE OSBORNE WILSON, '14.

Advisory Board—CAROL GREEN WILSON, '14, Secretary.

INDEX

PAGE

Academic committees 9
Academic council 67
Accounting 141
Accredited schools 76
Administrative committees 9, 68
Administrative officers 6
Admission, conditions of 73
of men 74
of women 75
on examination 73, 77
on recommendation 73
special students 74
advanced standing 74
graduate standing 74, 103
to Law School 227
to Medical School 243
Advanced standing 74, 102
Advisory Board 9, 68
Aid Funds 85
Alumni Association 445
Loan Funds 90
Alumni Jordan scholarships 93, 336
Anatomy, courses in 119, 245
Applied Mathematics 121
Appointment office 87, 118
Approved preparatory schools 76
Art 83
Art Gallery 70, 320
Assistants in instruction 52
in administration 60
Associated Students loan fund 90
Astronomy, entrance 80
courses in 123
Athletic Training 70, 273, 276
Bacteriology 124, 245
Belgian Relief fellowships 95, 336
Bertha Hyde Braly scholarship 92, 336
Biblical History, entrance 80
courses in 127
Biology, entrance 80
general 128
Botany, entrance 80
courses in 129
Brodie G. Higley scholarship 91, 337
Buckel fellowship 94, 335
Buildings 70
Calendar 5
Candidacy for advanced degrees 109
Catalogue of Students 340

PAGE

Certificates, teachers 114
Chemical Engineering 138
Chemistry, entrance 80
courses in 133, 245
Chemistry, teaching fellowships 95, 335
Civics, entrance 80
Civil Engineering 165
Club Houses 72
College Entr. Exam. Board 75, 77
Committees 6, 9
Comprehensive examinations 75, 77
Conditions and incompletes 99
Conduct of students 104
Cost of living 86
Council, Academic 67
Courses of Instruction 119
Cubberley fellowship 94, 335
Cyril F. Elwell scholarship 95, 336
Dean of Men 86, 89, 90
Dean of Women 86, 89
Debates 317
Degrees 107, 321
Departments 68
Department executives 7
Department faculties 68
Dickey scholarships 90, 337
Directories 4
Disqualification 100
Dormitories 70, 86
Dorothy Metz scholarship 92, 338
Drawing, entrance 83
courses in 161
Economics, entrance 80
courses in 140
E. C. Converse scholarships 94, 337
Education 148
Electrical Engineering 171
Emmet Rixford scholarship 93
Employment Bureau 87, 118
Encina Hall 70, 86
Engineering 164
chemical 138
civil 165
electrical 171
mechanical 173
mining 264
English, entrance 79
matriculation test 79
courses in 179

PAGE
Enrollment in classes 97
Entomology 312
Entrance examinations 73, 75
Entrance subjects 78
Entrance units 76, 101
Ernest A. Love scholarship 92, 338
Executive Committee 9, 68
Executive heads of departments 7, 68
Expenses 85
Extra entrance units 101
Faculty 10, 66
Faculties, department 68
Fees 85
(see also under departments)
Fellowships 94, 335
Food Research Institute 69
fellowships 95
Forestry 130
Foundation 65
French, entrance 80
courses in 295
General Regulations 97
General Science, entrance 80
Geology, courses in 193
George E. Crothers scholarship 92, 336
German, entrance 81
Germanic Languages, courses in 198
Gertrude Gardiner scholarship 92, 337
Grades 99
Graduate Loan fund 90
Graduate standing 74, 103
Graduation 107
Graphic Art, courses in 161
Greek, entrance 82
courses in 204
Guild, Students' 96
Gymnasiums 70, 273, 276
Harker loan fund 90
Harvard Club scholarships 96
Health control, University 105
High School teacher's certificate 114
Hiram C. Fisk scholarship 93, 337
History, entrance 80
courses in 208
Honorable dismissal 104
Honors 99
Hoover fellowships 334
Hopkins Marine Station 72, 218
Horace Davis loan fund 90
Hospitals 96
PAGE
Hygiene, entrance 80
courses in 245, 274, 278
Intercollegiate Debates 297
Ira S. Lillick scholarship 94, 336
Mrs. Ira S. Lillick scholarship 94, 336
Italian 300
Joffre Medal 317
John M. Stillman scholarship 93, 339
Journalism 190
Latin, entrance 82
courses in 221
Law 226
Law School scholarship 92
Leave of absence 101, 103
Lectures and debates 316
Leland Stanford Jr. Museum 70, 319
Leon Sloss scholarship fund 339
Library 71, 238
Lionel R. Lenox fellowship 95, 335
Loan Funds 89
Lower Division 79, 97, 107
Mabel Hyde Cory scholarship 91, 336
Major subject 98, 108
Marcelle H. Rouiller scholarship 92, 339
Mathematics, entrance 79
courses in 240
Mathematics, Applied 121
Mechanical Engineering 173
Mrs. McDowell scholarship 92, 338
Medaille Joffre 317
Medical preparatory studies 243, 289
Medicine 71, 111, 113, 243
Memorial Church 257
Memorial scholarship 91, 339
Metallurgy 262, 264
Military Science 257
Mineralogy 196
Mining and Metallurgy 262
Museums 70, 319
Music 84, 270
North Pacific Oratorical contest 318
Obstetrics and Gynecology 249
Officers 6, 10
Organizations 65
Paleontology 197
Pathology 124, 251
Payson J. Treat scholarship 337
Petroleum 268
Pharmacology 252
Philosophy 271

PAGE
Physical Education 273, 276
Physics, entrance 80
courses in 281
Physiology, entrance 80
courses in 253, 286
Political Science 289
Portuguese 300
Pre-Nursing curriculum 256
President, powers and duties 66
Probation 100
Public Speaking 188
Psychical Research 94, 293
Psychology 293
Recommendat'n, prepar't'y school 73
Regents Diplomas (N. Y.) 73
Regional scholarships 93, 339
Registration 97
Reinstatement 101
Religious services 257
Rhodes scholarships 96
Robert Patek loan fund 90
Roble Club scholarship 92
Roble Hall 70, 86
Romanic languages, courses in 295
Russian 308
Scholarship deficiencies 99
Scholarships 90, 335
Scientific collections 312, 314
Secretarial training 147
Self-support of students 87
Sequoia Hall 70, 86
Shopwork, entrance 83
Slavic 308
Spanish, entrance 80
courses in 295
Special courses 102
Special Students 74, 101, 109
PAGE
Sperry fellowship 95
Standing committees 9, 60
Stanford-California debate 317
Stanford Union 70, 72, 86
Stanford-Washington-Oregon debate 317
State Normal Schools 103
Student control 105
Student Employment Bureau 87, 118
Students, catalogue of 338
Student loan funds 90
Summaries 401
Surgery 253
Teaching credentials 114
(see also under departments)
Teaching fellowships 95
Technical assistants 59
Terman fellowship 94, 335
Trustees 6, 66
Tuition fees 85
T. W. Stanford Art Gallery 70, 320
T. W. Stanford fellowship 94, 335
Unit of credit, entrance 76
in University work 98
University faculty 10, 67
health control 105
University fellowships 95, 335
University scholarships 94, 337
Vaccination 105
West Memorial Lectures 316
William Burton Barber loan fund 90
William I. Weaver schol'rs'p 93, 336
Wilmer J. Gross scholarship 92, 337
Women's Club House 72
Yale Alumni fellowship 96
Zoology, entrance 80
courses in 309